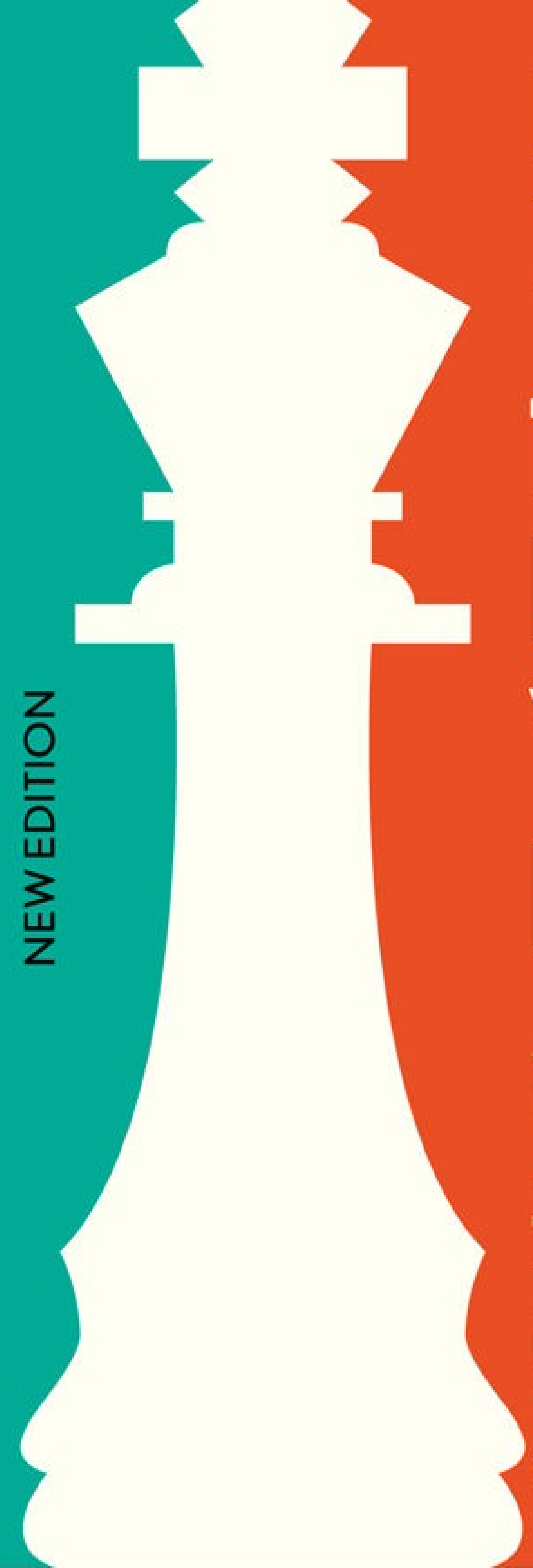


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JESUS DE LA VILLA

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Vital Lessons for Every Chess Player

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Jesús de la Villa

100 Endgames You Must Know

Vital Lessons for Every Chess Player

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Introduction

The relative importance of the endgame

In my first years in the world of chess, I used to read a lot about the importance of a good knowledge of endgames and the futility of studying openings. I used to find this kind of statement not only in Capablanca's works, but also in many articles from magazines of that time: sentences like 'Grandmasters' greater understanding is most clearly noticeable in the endgame' and similar things. Strategy used to receive the same, or similar, treatment when compared to tactics. You could read sentences like 'Grandmasters spend much more time in developing plans rather than in calculating variations' and so forth. That could be the reason why I, who spent almost my whole time during the games in calculating variations accurately, and devoted much more time to the study of openings rather than the endgame, could not even imagine that I would one day become a grandmaster.

It took me a long time to discover that all those recommendations were fairly exaggerated, but perhaps I should be grateful to them, as I do not know whether, otherwise, I would have paid to the endgame the attention this stage of the game truly deserves. My concern about those statements by famous players led me to devote some time to the study of the endgame, which eventually I enjoyed.

It is true, however, that it was not easy. One of my first decisions, a rather drastic one, actually, was to buy *Rook Endings*, by Levenfish & Smyslov, a book as excellent as it is boring. I had to start reading it several times, as I found it extremely difficult to get beyond the first one or two chapters. Nevertheless, in the end I managed to absorb some of the material.

Recently, the openings have taken over as overwhelmingly the main area of chess study. All great players spend most of their time researching new variations, in order to surprise their opponents and obtain as large an advantage (or as small a disadvantage) as possible, before the game itself really begins. But do not be fooled: it is not that these players have discovered that there is no value in studying the endgame, merely that they have already done their homework and at least have a good command of the most important endings. Of course, there are some 'distinguished' exceptions, as you can see now and then in a few of the games and examples in this book, in which top players seriously misplay basic endgames, but, generally speaking, top players have good endgame technique. The fact is that the number of important theoretical endgames, and especially those which are of practical relevance, is much smaller than the field of openings. Those top players have already 'paid their dues', as it were, that is, they have studied the necessary endgame material in the past, and now they can devote greater efforts to other aspects of the game, without fear of losing unnecessary half-points in the endgame, during tournaments.

Therefore, if you intend to reach a certain rating, I will not say that a good command of the endgame is essential, but it is certainly very useful. On the other hand, if you neglect this part of the game, many half points, or even full points, will now and then elude you. And you will rarely get wins in the opening to make up for those lost (half-)points, as nowadays everyone comes to their games armed to the teeth with opening preparation. To put it simply: a player who reaches a certain level as regards theory, strategy and tactics, will lose many points if his mastery of the endgame does not correspond with that same level. Thus, the study of the endgame will be the most straightforward way to improve his rating. If his mastery of the endgame is at the same level as his other skills, this effort would not be so profitable, but my experience suggests that this is not the case with most players.

Why is this? Well, any player with some years of experience, even if his rating is below 2000, knows the story: 'Studying the endgame is boring'; 'Half (if not 90%) of the endings I look at are quickly forgotten'; 'I can't find a book with good explanations'; and, perhaps the smartest excuse of all, **'My games never reach the endgame!'** This is especially true of the games of players who

avoid the endgame deliberately, sometimes by means of excessively risky play in the middlegame; such players often lose in the middlegame, as a direct result, although they generally explain away their defeats by blaming them on 'tactical blunders', or 'time-trouble', or some similar excuse.

This tendency to neglect the endgame has grown as the rates of play have become faster and adjournments have been eliminated. Previously, adjournments allowed deep analysis of positions (often endings) and helped players to develop their endgame technique and their appreciation of the endgame. Moreover, accurate play in endgames was possible with enough time on the clock, and those games were worth analysing, as they were fine works of art, with the study of which we could improve our overall chess understanding. Now it is rare that an ending is played with reasonable time on the clock, which leads to real comedies of errors. Consequently, the analysis of contemporary endgames is often more useful as Laughter Therapy than as a chess lesson. But precisely due to that lack of time on the clock, a good command of basic endgames is even more necessary than ever. If you are running out of time and do not have a clue about how to handle the position, the game is much more likely to end in disaster.

When I wrote this book, my intention was to help those players willing to devote some effort to correct this (almost chronic) situation. This book can help but, let us be honest: there are neither magical formulae, nor wisdom pills: your own personal effort is essential. So I thought a lot about how to conduct the study, and why many excellent books had failed before. My main hypothesis is that most endgame books have been written as reference books, that is, compiling and presenting knowledge without the least intention of explaining. Most such books cover the ground very rapidly, and thus provoke their readers to read them equally fast. That is why I have set out to explain the endings slowly and I recommend their study be slow as well.

The study of the endgame

First, I consider the approach towards the study of the endgame must be multi-staged and always keep the same pace as the player's overall playing level. Therefore, the different stages must be separated in time, if necessary.

In the first stage, it is enough to master the basic checkmates, King + Pawn vs. King endings, and to know which main material relations are winning or not; in addition, a few exceptional and frequent situations, such as the Bishop + Wrong Rook's Pawn ending, etc.

A second step in this first stage would involve the Philidor and Lucena Positions in Rook + Pawn vs. Rook endings, as well as some more ideas in pawn endings and opposite-coloured bishop endings. In this book, this would amount to Chapter 1 and **Endings 41, 42, 44, 45, 46, 65, 79, 80, 82, 86, 89, 90, 91 and 92.**

Almost any amateur who is willing to put in a small amount of work, is able to achieve this (though unfortunately, for some people it takes too many years) and actually that is enough until the moment one reaches, say, a FIDE rating of around 1900-2000. Beyond that point, greater endgame skill is a must. At this stage, problems usually arise, but the upside is that this extension of a player's endgame skill will usually be enough at least until he becomes an International Master with a rating of around 2400. However, do not get me wrong: I am not saying that all IMs have done this, nor am I saying that any player who does it will automatically become an IM.

At this stage (2000 FIDE) we should move to the second phase and then **the first thing to do** is to acquire an **exact** knowledge of some theoretical endings. Otherwise, even players keen on simple positions who have a good command of the most typical themes will often hesitate when they have to shift to a simpler ending, thus spoiling their previous efforts. Moreover, some typical endgame themes will be necessary here, but most are learned from the study of basic positions.

The **'exact endings'** we need to remember are just a few. Besides, some are really easy to memorise, and others could be considered as marginal in view of their comparative rarity in practice. They are just a few, but you must know them well. This fundamental knowledge and the confidence we acquire with it is the starting point to study other positions of greater complexity or to turn a technical advantage into victory.

After we have acquired a good command of the basic endings comes the third phase. In it, we

will study in more depth some endgame themes which we will find easier, as they do not demand exact memorisation. Only when you master the basic endings and are familiar with the most important (that is, most frequent) themes can you jump to the next phase: the study of multi-piece endgame strategy. These endings are sometimes called practical endings (although all endings are practical) and many excellent books have been devoted to them, such as Shereshevsky's *Endgame Strategy*. Throughout history, players such as Lasker, Rubinstein, Capablanca, Smyslov, Kortchnoi, Karpov, Andersson and many others have shown a remarkable technique in practical endings. Their games are the best source of learning. Of course, their games are not the only possible source of endgame skill, and usually players acquire additional experience from their own games, which helps them improve in all directions at the same time.

The content of this book

I intend to devote this book to the second phase, that is, the study of the **'exact endings'**, as I consider it the most neglected (perhaps because it is the least exciting) area. However, I am aware of the difficulties of this task. I have tried to summarise the most useful positions among the numerous endings, and to reduce them to a figure and volume that could be handled by a practical player as well as trainers or coaches. The final result was the symbolic number 100. Perhaps some endings deserved to appear in this book but were left out; perhaps some are included in the book but should not appear. In any case, everyone may have his opinion, but this has been my choice.

As stated in the title, my intention was to include only **'the endings we all should know'**. The reader may well wonder: which ones? The answer may be controversial, but these were the criteria used, in order of importance:

1. **To be frequently encountered in practice.**
2. **To be capable of clear analysis (and therefore, easier to remember).**
3. **To contain ideas that can be applied to similar, or even more complex, positions.**

Thus this book was not intended as an encyclopedia, dealing with all known endings and used as a reference book, but as **a practical tool** which allows the reader to improve his knowledge of the theoretical endgames most likely to arise in an actual game.

When we play a simple ending, our train of thought leads us to reduce it to a familiar position. Until we have achieved this, we will have doubts. My aim when selecting positions for this book was to include those familiar positions we easily and frequently reach, so that they can guide our train of thought when playing. With a good command of these positions, we will play with more confidence, and mistakes will be less likely to occur. Taking all this into account, I have left out the basic checkmates (I assume they are known) and other endings such as Queen + Pawn vs. Queen, and Knight + Pawn vs. Knight. The reason is that tactics play a more important role than ideas, and also that these endings are not so frequently encountered, so their study is not very useful. On the contrary, I have emphasised rook endings, as well as opposite-coloured bishop endings; the former are the most frequent, the latter are the clearest.

In some cases, just very few, I have included positions almost impossible to learn by heart and whose analysis is complex. The reason was that either I considered those endings important, or they are relevant from a practical point of view, or they influence the understanding of other endings. **These cases are labelled in each chapter as especially difficult, and they must be studied in a different way.**

Once the selection was complete, I tried to explain the endings in a clear fashion. I intended the explanations to be easy to learn and remember for a practical player, and useful for a trainer in his lessons. How did I plan to do this? I will give a more detailed explanation in the next section.

How to study this book

The best approach depends on the level of each player, that is, his overall strength and his previous endgame knowledge. However, such a particular guide would be exhausting, so I will give you a more general explanation. I assume that each reader will adapt it to his personal circumstances and, once the book is in your hands, you are always free to do whatever suits you best.

After years of coaching, my experience and the views of some colleagues have convinced me of the need for an introductory section presenting a chapter on basic endings. These positions are very well known but, even so, I have noticed certain conceptual errors in some players. Thus, the readers who hesitate in these endings can start from the basics, whilst those readers who consider that they have already mastered these endings (I think this will be true of most readers) can skip this part.

Then you have the first test. We call it the Basic Test. The positions are very simple, with little material. A 1st Category player should be able to solve all correctly. These positions do not require great calculation. If you find some difficult, that means you lack some knowledge of endgame theory. The test constitutes an interesting exercise previous to the reading. I will now tell you why: first, the effort required to solve these positions will be useful training for practical play, since knowing the theory is not enough, you have to be able to apply that theory to an actual game. Moreover, each reader will find some of these positions more difficult than others. Thus he will get an idea of his weak points and can pay more attention to those positions when he reaches them in his study.

And last, I am a firm supporter of the Japanese (Chinese, according to some sources) saying: If I hear – I forget, if I see – I remember, if I do – I understand. That is, only when we ourselves have done something do we reach the level of mastery, that allows us to repeat the task without difficulties.

At the risk of boring the reader, I will give just one more example: imagine you are in a new city and have to go for the first time, for example, from the hotel to the playing hall. If a friend (or a GPS) leads you, you are likely to fail to repeat the route (depending on the difficulty); however, if you go on your own, you will keep the route in your mind forever. This idea can be successfully applied to the theoretical study of each ending, as we will repeat when the moment comes. Later, from Chapter 3 onwards, comes the study of the important theoretical positions. These are organised in chapters regarding the material on the board, and sometimes in sections within one chapter regarding the important ideas involved.

The attitude to study

Before you start to study each chapter, some ideas should be clear. Each position we learn will be useful forever; at least that is the idea. In contrast with openings, the theoretical status of these positions will not change and no new moves will appear. In some cases, a new, clearer playing procedure may be discovered. The final result will nevertheless be the same. Taking this into account, we should study each example until we fully understand it. How?

The first thing to do is to observe the position without prejudices. The only previous idea must be: one side tries to win (generally, by promoting a pawn) and the other side tries to draw.

Second, before we read the theoretical sequence, a look at the diagram proves useful, followed by the question 'What would I play here?' This procedure follows the Japanese wise saying previously stated and we will experience its benefits.

Once we have thought about the position and decided on what we would ourselves play, we start replaying the analysis. This is best done on a board. Remember that this learning is intended to last your whole life: do not be lazy and rely on reading from the diagram – get out your board and pieces! Of course, many players can follow the analysis blindly, but I recommend that you do not try to be too smart. Even if you devote all your attention to them, some endings require some repetitions and are likely to be forgotten otherwise. Do not make things worse by laziness.

Now you are in the ideal frame of mind to learn an ending. Let us move ahead. Every time you replay a move, try to understand **'why'**. This may bore you, but think that many endings require a few moves, and some of them have obvious goals. I repeat: **'To know why you play a move is essential'**, otherwise you risk forgetting the right procedure, or applying it wrongly in a similar but not identical position. Analysing the endings with a friend, or at the chess club, would be ideal, as then you can discuss the moves and thus reinforce your understanding. If that is impossible, understanding each move is even more necessary.

Memorising rules

I try to explain each example in a clear way, and in a way that you can memorise for ever. To achieve this goal, I try to focus on guiding ideas and realise what helped me remember throughout the years, or why I have forgotten (several times) a particular ending. Sometimes the same procedure works in many different starting positions, but the final result depends on the position of (sometimes more than) one piece. I do not trust geometrical lines marking an irregular area of the board. Those may be OK for a reference book on theory, or for a scientific research, but we are talking about a sport! And some cases are tough to remember. In my opinion, the best procedure is to find out why the procedure sometimes works and sometimes does not. The reason should help us state a rule, which has to be as simple as possible. If you find and understand that rule, you will be able to remember the ending accurately; if you do not find such a rule, you will have an approximate idea which could be useful to guide your calculations, but not to acquire a perfect knowledge. Therefore, try to draw conclusions from each ending and try to extract something essential which aids your memory. The same goes for the exceptions: if there is an exception, there must be a reason; if we understand the reason, we will not have problems, but if we do not, we will never realise that it is an exception.

Kortchnoi declares himself keener on exceptions than on rules. I think that is a nod from a practical player, as he is practical at the highest level. Actually, exceptions are rules as well, only their field of application is narrower. Probably Kortchnoi is more keen on exceptions because they are less well known… to his opponents.

In order to remember a certain procedure or rule, a useful technique is to give it a name, even an abstract name. Of course, this works better when the name is related to the situation. Then it will be extremely useful.

That is why I try to give names, or highlight some ideas from all positions. That is why almost all positions have a heading. That is also why I have tried to gather all the names existing for the manoeuvres I show, and invent some more. The names are useful: they may carry no meaning, but they can help us, imperfect humans, remember everything.

Extreme positions

In some endings, I have tried to emphasise certain positions which I call *extreme positions*. As the name suggests, these are extreme situations where the line between a win and a draw is really thin; a slight change in the position of at least one of the pieces would alter the result.

Memorising extreme positions is useful indeed. If a more advantageous situation occurs in one of our games, we will be aware that the result is favourable to us (and vice versa, if the situation is less advantageous), and in these positions calculation is rather simple once we know the result.

On the contrary, if we have doubts about the exact position a piece should occupy for us to win (or draw), mistakes are likely to appear due to lack of time, tiredness or the anxiety caused by the doubts.

For other examples I present at the same time some similar diagrams with different results. Usually the analysis of one position is enough to understand why this slight alteration in the position produces a different result. However, it is interesting to see all the diagrams in order to fix your memory. We could say that **extreme positions** are like a lighthouse guiding our analysis in an obscure position. Without them, we could only use clearly defined positions to find our way, and thus chances of calculation mistakes would be multiplied.

Now and then, after the analysis comes the study of a similar, but slightly altered, position. The observation of the influence of such small alterations in the result is an efficient tool to understand the position. Or sometimes the text suggests analysing some lines as a complementary exercise. Such an exercise should be simple once the ending has been studied and constitutes an entertaining and economical way to check our understanding of the ideas. Moreover, if we compare the effect of small alterations on the result, we will become aware of the limitations of the rules acquired. Thus, when a similar situation arises in one of our games it will be easier to imagine to what extent are these rules modified, or whether their application works or not.

Step by step

Even if you follow all my advice on the techniques to study the endgame, and give all your attention to the task at hand, some endings (a few), will be really tough. They are simply too abstract and their full depth is impossible to grasp the first time you meet them. No matter how much effort and attention you put in, some endings, especially rook endings, will be partly forgotten after some time, and you will have to go over them some months later. Do not feel bad about this: you are not the only one to experience it. Things will get much clearer after you have refreshed your knowledge a couple of times and the tough endings have occurred in some of your games. At last, you will find that they become fixed in your mind.

I must acknowledge that endings are somewhat boring and abstract, and are not precisely rich in combinations; however, there are some tricks worth knowing which can work as a reference. That is why I do not recommend doing too much at one session, or reading the book in one go until you learn all the endings included. You should take the book in small doses. Do not study more than one chapter in just one go; then, let some days go by before you start with another chapter. I know I am continuously repeating the same, but again: when you study an example, always try to understand it thoroughly.

After you have learnt one type of ending, you can start with another. Everything depends on the available time, on your attention and on your previous knowledge, which very often can do part of the job for you. Perhaps you should divide into two or more parts those chapters devoted to rook endings. Of course those chapters are very likely to need some revision after some time. Do not be afraid to revise them, everybody needs this; the second or third time you revise an ending, most things should remain clear.

Second Test

Once you have finished with the chapters on theory, then comes another test. I recommend your taking this second test when you have read the whole book, or even better, after some weeks. Anyway, of course every reader can use the material as he prefers.

This second test is slightly more difficult than the first one, although some positions belong to the same level. Most questions require some previous calculation before the position is reduced to one of the known examples, but a little calculation will always be enough to find the solution, which will be based on one of the endings analysed in the book. By taking this test, you will be able to identify the positions which you find tougher; in any case, if you do not find difficulties, the test will be a good way to practise and fix your learning. Taking the test and then checking some incorrect answers is very likely to improve your playing strength. The effects of taking the test and revising your knowledge may be as useful as the reading of the whole book.

Apart from the two tests, I mention **Recommended Exercises** in several sections of the book. In most cases, these exercises involve the analysis of positions similar to those just seen, with some slight changes in the position of the pieces. In contrast with other books, these extra exercises are always easy and their resolution will help you understand the material studied and, therefore, will help fix it in your memory. Anyway, even if you find the word *exercise* very unpleasant, when you meet one of the recommended exercises you should wonder: do I have doubts about this position? If not, you may skip this exercise; however, if your answer is affirmative, it is better to do the exercise to prevent this doubt from revisiting you one day in the form of a lost half-point.

‘Standing on the shoulders of giants’

Many readers probably know this famous sentence by Isaac Newton: ‘If I have seen further it is by standing on the shoulders of giants.’ There could not be a better description for the elaboration and study of a book on endgame theory.

Without the work, sometimes impressive, carried out in the past by some players and theoreticians, endgame theory could have been still very green when the Nalimov Tablebases appeared.

I think some of these players and theoreticians must be mentioned here, though their names will appear throughout the book linked to essential manoeuvres.

In this giants’ hall of fame, Philidor occupies a prominent position. His precise analyses of the

basic endings Rook + Pawn vs. Rook and Rook + Bishop vs. Rook, as well as the essential manoeuvre in the Bishop + Knight checkmate, and many others, were simply unbelievable at a time when there were neither previous books, nor theoreticians at his disposal to help him improve his analyses by adding ideas. Later, the names Centurini, Chéron, Euwe, Grigoriev, Levenfish and Averbakh are impossible to ignore.

In contemporary times, many endings can be checked by means of the Nalimov Tablebases (Turbo Endgame), an excellent tool which has corrected some errors in previous theory.

Nevertheless, the efforts carried out in past analyses cannot be compared to our quick verifications, and the fact that computers have found so few mistakes in their analysis is certainly to their credit.

Introduction to the study of the endgame

Before we start working with concrete positions, I consider that there are some data and concepts worth knowing. Some will be an aid in our practical decisions and others will make it easier to understand the logic behind some of the endings; finally, some will just help us acquire a more global vision of all this.

Statistics

Nowadays, databases make it easier to create statistics. I remember some book in my youth stating that 10% of games involved a rook ending. That seemed to me exaggerated, but actually it is not *that* exaggerated. (I have recently read that 20%! of the games involve a rook ending but, of course, that was an ad from an endgame book, and we know how these things work.)

The following chart shows the number of games for each kind of ending and, in some cases, the percentage of drawn games. These statistics have been created using a database with 4 million games (of course, some are duplicated and some results are wrong, but I do not think that matters much for the general idea). The first column refers to the material; if it is Rooks it refers to endings where each side has a rook and any number of pawns; when it says R+P vs. R it means Rook + Pawn vs. Rook. The second column shows the number of games, and the third the percentage over the whole database (4 million). The fourth column shows the number of drawn games and the fifth the percentage of drawn games.

Type of ending	Games	%	Drawn games	%
Rooks	320,548	8.01	120,610	37.63
Queens	69,340	1.73	28,766	41.49
Knights	57,578	1.44	21,751	37.78
same-col. Bishops	60,639	1.52	23,128	38.14
opp.-col. Bishops	42,759	1.07	24,813	58.03
N vs B	123,791	3.09	42,308	34.18
Pawns	120,136	3	32,279	26.87
Total 1	794,791	19.87	293,655	36.95
R+P vs R	26,065	0.65	13,989	53.67
R+2P vs R	21,486	0.54	4,216	19.62
Q+P vs Q	3,749	0.09	2,077	55.40
N+P vs N	2,207	0.06	1,575	69.38
B+P vs B=	1,299	0.03	694	53.43

≠B+P vs B	369	0.01	332	89.97
≠B+2P vs B	1,698	0.04	730	42.99
B+P vs N	1,346	0.03	930	69.09
N+P vs B	2,184	0.05	1,656	75.82
K+P vs K	12,257	0.31	6,141	50.10
K+2PvsK+P	18,263	0.46	4,837	26.49
K+2PvsK	4,098	0.1	216	5.27
K+P vs K+P	10,809	0.27	5,954	55.08
Total 2	105,893	2.64	43,347	40.93
R+B vs R	1,846	0.02	1,040	56.34
B+N vs K	712	0.04	135	18.96
N vs P	1,698	0.04	1,488	87.63
Q vs P	4,320	0.1	475	11.00
R vs P	5,704	0.14	2,790	48.91
R vs 2P	5,226	0.13	2,007	38.40
Q vs R+P	1,237	0.03	367	29.67

The first thing that catches our attention is the confirmation of the overwhelming frequency of rook endings. 8% of the games involve a one-rook ending! If we add double-rook endings or Rook vs. Minor Piece endings, it will surely reach the 10% mark. If you have bad rook-ending technique, you should be worried. The saying ‘All rook endings are drawn’ is not so accurate. That was probably a joke, or its validity was not checked. As could be expected, opposite-coloured bishop endings are the most drawish (58%), but rook endings are at the same level as the rest. Pawn endings are the least drawish. Take notice! Swapping all the material is not always the safest way to draw.

However, there must be some truth in the famous saying about rook endings and draws! I think there is. The feeling that all rook endings are drawn comes from the fact that in other endings, an experienced player is able to see whether the ending is drawn or not, so he just plays and if the game is drawn he already expected that. On the contrary, very often we play a rook ending thinking our advantage is enough to win, but then we fail to do so. Therefore, ‘All rook endings are drawn!’ really means that rook endings are tough and the defender can always pose problems, especially when his pieces become active.

As for theoretical endings, with one or two pawns per player at most, rook endings do not justify their drawish reputation either. Will the reason be, in part, that many players ignore them? In any case, the most drawish endings, after opposite-coloured bishops endings, are Knight + Pawn vs. Bishop. This has some logic, as the knight is inferior to the bishop when the board is empty.

The biggest surprises come in the section ‘Different Material Relations’, especially the astonishing 19% of Bishop + Knight vs. Lone King endings that were drawn!! (and I can tell you some of the players were grandmasters!); the 44% of Rook + Bishop vs. Rook endings won, despite the drawish nature of this ending, is also outstanding. I will come back later to the statistics of this section.

In any case, the fact that 20% of the games lead to endgame struggles between equally strong pieces (including pawn endings, which are also, not entirely without reason, called king endings), clearly illustrates the importance of this phase of the game and can make us suspect that many half points are lost on the way. Nevertheless, this last statement cannot be reflected in statistics, as that would require Shakespeare's Monkeys' analytical powers.

Pieces' mobility

In order to study single-piece endings, you should notice some of the specific features of the pieces and, above all, their limitations. In the following series of diagrams (one for each piece), figures indicate the number of squares dominated by the piece.

A simple observation may tell us some interesting things.

A rook dominates the same number of squares in the centre as at the corner; therefore, it makes perfect sense that it often moves to the edge of the board, as the enemy pieces cannot easily attack the rook there.

A bishop's mobility is reduced, though not dramatically, as it moves far from the centre; on the edge of the board, the bishop's mobility is almost reduced to 50%. Naturally, the queen always dominates as many squares as a rook + a bishop; therefore, her activity is hardly reduced.

The piece whose mobility suffers a serious reduction as it moves far from the centre is the knight; in the centre, a knight dominates 8 squares, which are reduced to just 2 (a 75% loss) at the corner and 50% on most squares on the edge of the board. Special attention should be paid to the square diagonal to the corner (g2, b2, g7, b7) where the knight just dominates 4 squares as well; this is an especially unfortunate spot for a knight, as we will see throughout the book, and for that reason we will call it 'the knight's dumb square'.

14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14
14	14	14	14	14	14	14	14

The rook

7	7	7	7	7	7	7	7
7	9	9	9	9	9	9	7
7	9	11	11	11	11	9	7
7	9	11	13	13	11	9	7
7	9	11	13	13	11	9	7
7	9	11	11	11	11	9	7
7	9	9	9	9	9	9	7
7	7	7	7	7	7	7	7

The bishop

21	21	21	21	21	21	21	21
21	23	23	23	23	23	23	21
21	23	25	25	25	25	23	21
21	23	25	27	27	25	23	21
21	23	25	27	27	25	23	21
21	23	25	25	25	25	23	21
21	23	23	23	23	23	23	21
21	21	21	21	21	21	21	21

The queen

2	3	4	4	4	4	3	2
3	4	6	6	6	6	4	3
4	6	8	8	8	8	6	4
4	6	8	8	8	8	6	4
4	6	8	8	8	8	6	4
4	6	8	8	8	8	6	4
3	4	6	6	6	6	4	3
2	3	4	4	4	4	3	2

The knight

The routes of the pieces

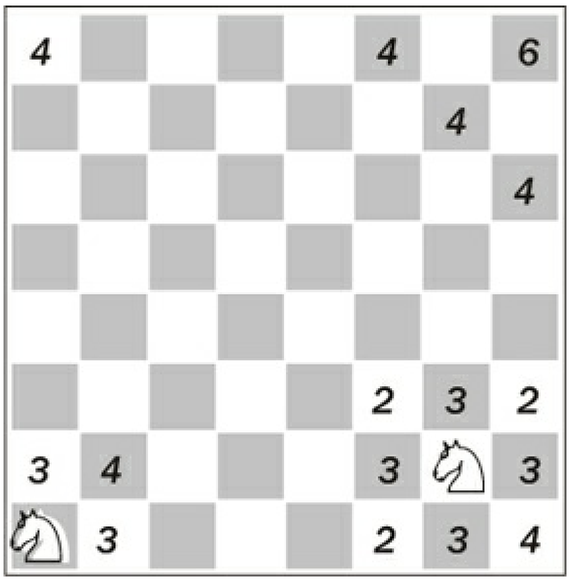
Another variable that can give us information about the pieces' mobility is the number of moves they need to reach a given square. A queen, a rook or a bishop will always need a maximum of 2 moves to reach any square on an empty board. Of course, the bishop is limited to squares of the same colour as those which it occupies. That speed is very relevant when it comes to stopping passed pawns. Thus, these three are long-range pieces. On the contrary, kings and knights are short-range pieces, and they need too many moves to cross the board. Thus, very often they find a passed pawn is out of reach.

However, the king and the knight present some differences. If you have a look at the following charts, you will find that sometimes the knight needs less moves to get to a certain square on the opposite wing than to one next to it.

Thus the so-called knight's circuits appear: 'efficient' routes to reach the right squares. However, if the knight is out of those circuits, it will remain out of play.

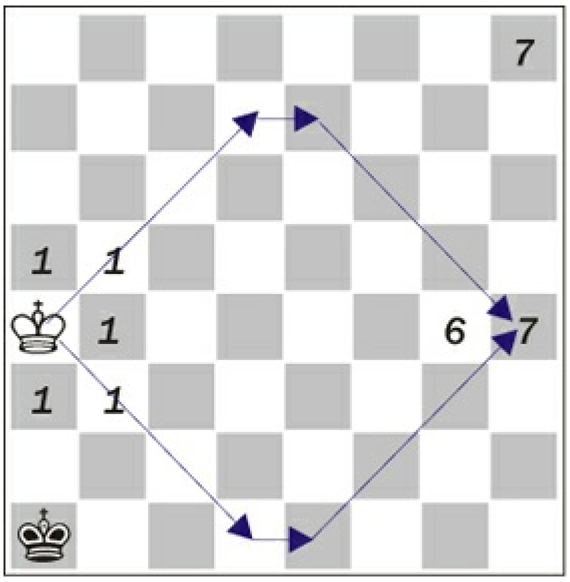
The knight's strange routes

In the following chart, numbers in italics indicate the moves a knight needs to get to that square from g2; the others indicate the moves it needs from a1. Smaller numbers indicate the different routes the knight may follow.



One thing that stands out is that the knight needs 4 moves to go from a1 to b2 (the dumb square), and also 4 to reach the other end of the board. We can also see that the knight always needs an odd number of moves to reach a different-coloured square, and an even number to reach a same-coloured square. That is a consequence of the fact that a knight jumps to a different-coloured square in each move. This is an important feature, since very often the knight is unable to 'lose a move', something the other pieces can perfectly well do. Thus the knight is less efficient and can more easily fall into zugzwang (several examples appear in Chapter 7).

The king's multiple routes



On the contrary, the king is more constant. It takes him 7 moves to move from one end of the board to another (also, from one corner to another). This is extremely slow, when compared to the other pieces, and makes him very vulnerable when struggling against distant passed pawns. However, in contrast with the knight, the king always needs more moves to reach a distant square than one nearby.

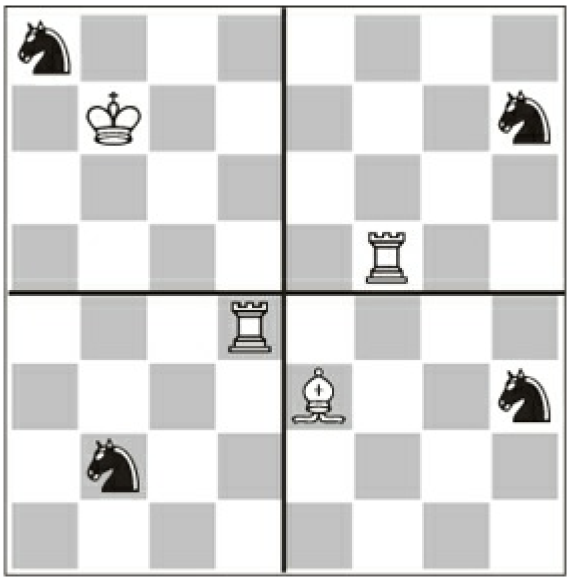
Nevertheless, one of the most interesting features of the king's mobility is that he can usually choose among many different routes to reach a distant square. In this chart, let us take the Ka4 to h4; the extreme routes, as well as the most straightforward one, are marked, but the king has many other routes… up to 393 possible routes!!!! Of course, the more diagonally he has to go, the narrower is his choice. Finally, a K on a1 needs 7 moves to move to the opposite corner and has just one available route (through the long dark-squared diagonal).

This feature is shared by the knight, but then the practical implications are minor. In the case of the king, the influence in practical play is tremendous: when the king has a clear goal, such as reaching a concrete square, this ability allows him to choose among different routes playing dual-purpose moves. The most frequent 'second purpose' is standing in the enemy king's way, as illustrated in many examples in Chapter 5 and then Chapter 11. That is why the ability of 'shouldering away' is so important in those endings where the king plays an active role.

The knight's domination

Another important feature of pieces' mobility, with special incidence for the knight, is the concept of domination. It is a situation where a piece 'dominates' all possible moves of an enemy piece and, therefore, reduces its options for efficient play.

When the board is more or less empty (and that almost always happens in the endgame), the piece more likely to suffer domination is the knight; however, when the board is more populated any piece can suffer it.



In this diagram we can see 4 examples of domination: Kb7 dominates Na8, Rd4 dominates Nb2, Rf5 dominates Nh7 (this is important to trap the knight in the Rook vs. Knight ending) and last, Be3 dominates Nh3. Very often a knight's domination by a bishop is relevant because if the knight manages to get free (for instance, with the aid of the king), an eventual exchange may be decisive.

The concept of a fortress. Some elementary examples

Another essential concept when dealing with elementary endings is that of the fortress. A fortress is a position where one side has a great material superiority but his opponent can hold with simple, though in some cases accurate, waiting moves.

Fortresses may arise with many pieces on the board, although in that case the positions are always partially or completely blocked.

Therefore the natural territory of fortresses is the endgame and some of their frequent (though not essential) features are the following:

1. Pawn breakthroughs do not exist (or those rarely found are useless).
2. When the strong side has passed pawns, they are firmly blocked.
3. The stronger side's king cannot penetrate, either because he is cut off or because the edge of the board is near.
4. Zugzwang positions cannot be forced, which implies a defensive set-up with available waiting moves.

Some of the endings analysed in this book can be considered fortresses; others are definitely fortresses, even though they are not always considered like that. Chapter 15, above all, shows many positions that can be classified as fortresses. Actually, this is the most natural defensive technique when the material disadvantage is great.

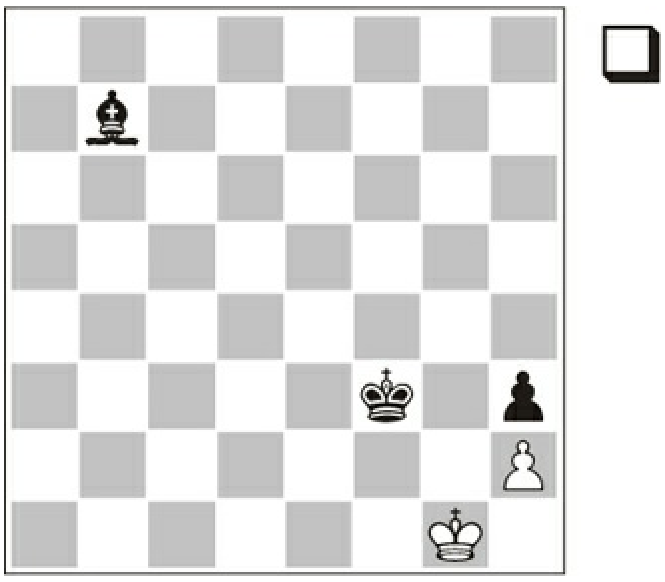
I would say that the main feature of a fortress is that defending is easy, and therefore the analysis is almost obvious. A position which does not fulfil this requirement can have the same practical effects, but a different approach for human intuition.

There is no need to know all fortresses discovered by endgame theory, as many of them are rather strange; however, it is useful to know some of them, as they determine the final result of endings with an heterogeneous material relation on the board. That is why I present a small appendix, purely visual but worth observing, to the following series of examples.

Nevertheless, the best procedure is to absorb the idea and be able to imagine on your own the positions where the fortress can be adopted.

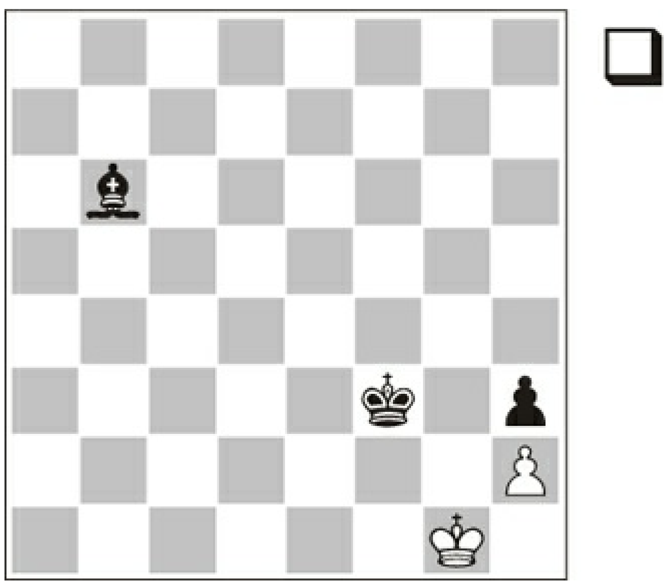
Now we will see some related positions, without analysis. If you have doubts regarding the statements, do not hesitate to check your doubts with personal analysis. Remember: you only

understand something when you have done it yourself.



Position I.1

Draw, but White should avoid 1.Kh1??. We could add blocked pawns for White on the h2-b8 diagonal, and for Black on the h3-c8 diagonal, and the result would not change.



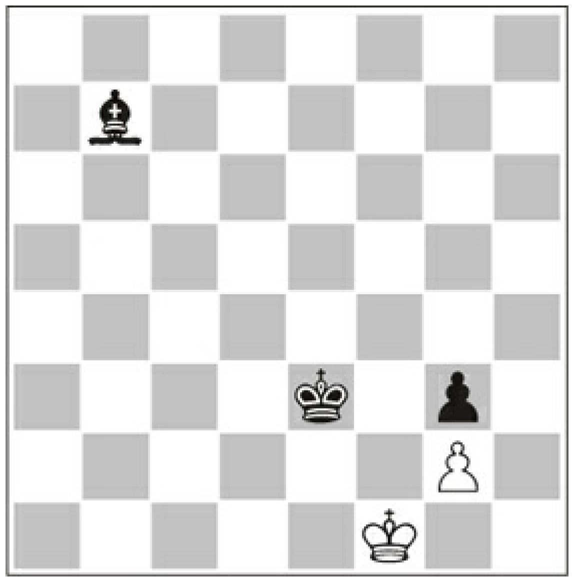
Position I.2

Draw, as long as the white king does not leave the corner.



Position I.3

Draw, as long as the white king does not leave the corner.



Position I.4

Draw, as long as the white king does not leave the corner.



Position I.5

Draw, as long as the white king does not leave the corner. More pawns could be added.



Position I.6

Black wins, no matter whose move it is (You can check it, as an interesting **Exercise**).

These ideas will be recurrent throughout the book. I recommend coming back to the introduction to refresh your memory when necessary.

And now it is time to start with our study of the 100 theoretical positions we have selected as the most useful for the tournament player.

Preface to the third edition

After the second edition of *100 Endgames You Must Know*, we have been able to make a number of corrections, which can be found on the Errata page of our website www.newinchess.com. Moreover, the author, Jesus de la Villa, has provided a few fresh examples. Some of them are from the 2012 World Championship match between Viswanathan Anand and Boris Gelfand. Endgame study remains important at all levels!

October 2012,
Peter Boel, editor

Preface to the fourth edition

For this fourth edition, we have made a few more minor corrections. The author, Jesus de la Villa, has updated the Bibliography in the back of the book.

The most important new feature is that we have indicated with small squares at each diagram which of the sides is to move. Where there is no square, the side to move is indicated below the diagram, or it does not matter who is to move (for instance, in case one of the sides has built a fortress). We have added this feature at the special request of several readers, who wrote to us that it is helpful if they want to use *100 Endgames You Must Know* as an exercise book. We are only too happy to oblige!

September 2015,
Peter Boel, editor

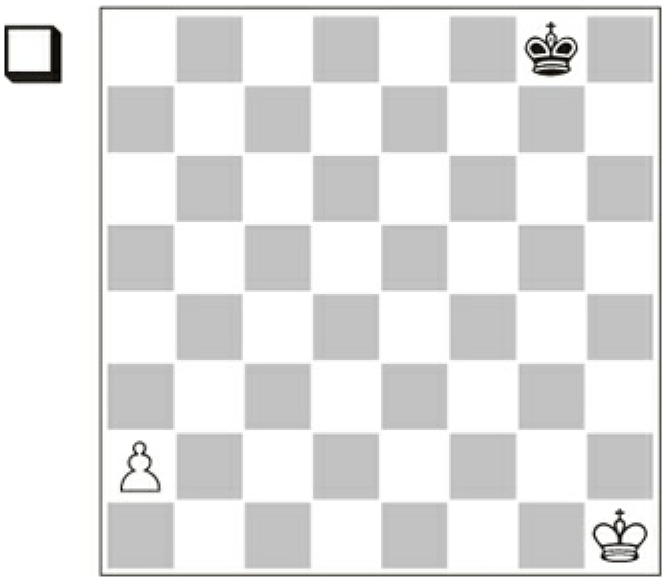
1. Basic endings

This chapter is a small bonus in the book. My first idea was that basic endings are well known and therefore our study should start from the next level. However, it is true that some basic endings are either not so well known or only at a superficial level. Therefore, I decided to add a preliminary chapter dealing with those basic endings which, according to some trainers whom I consulted, pose problems to beginners. I also thought that it could help many trainers at the elementary level. Of course, experienced players can skip this section.

A great part of this chapter is devoted to King + Pawn vs. King endings. Most players handle these endings with confidence, but some have trouble in less common positions. Very often the problem lies in the overuse of the theory of the opposition. While opposition is a very useful concept and its best field of application is Pawn endings, its value is sometimes overestimated.

King + Pawn vs. King endings are best explained by means of the key squares theory, using opposition at the right time and adapting its value to each situation. I assume the reader knows the basic mates and the Bishop + Wrong Rook's Pawn ending. In any case, a perfect demonstration of these endings can be found in many books.

ENDING 1 — The rule of the square

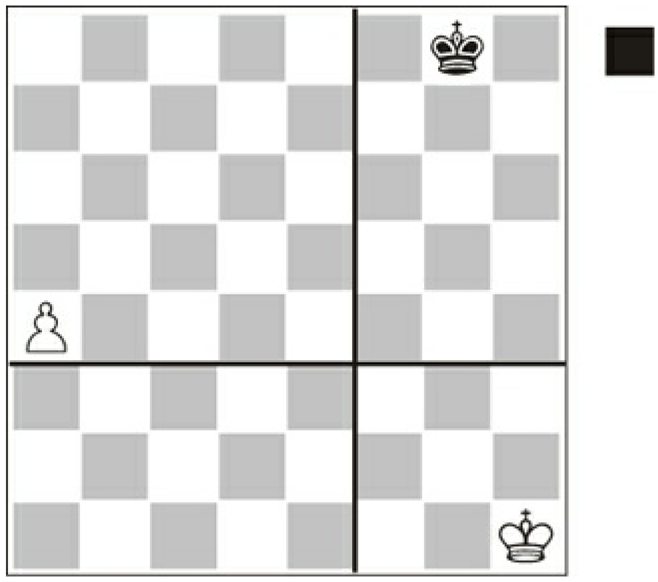


Position 1.1

The first question we have to answer in King + Pawn vs. King endings is this: **Can the pawn promote without the aid of the king?**

Calculating the race between the pawn and the enemy king is enough to answer this question. This calculation is not complicated but, anyway, experience has taught us a simple way to solve the problem at a glance: the so-called 'rule of the square'. This rule helps us calculate and can be applied to any other endgame which presents the same race situation.

1.a4!



Position 1.2

After the pawn advances, we draw an imaginary square that reaches the 8th rank. In this example the vertices of the square are a4-a8-e8-e4.

1...Kf7

Of course, the black king tries to prevent promotion. Now we are ready to state the main rule.

Rule of the square: If the king can reach the square of the pawn, then he can capture the pawn; if not, the pawn promotes.

If, when recalling the rule, we doubt whether the king must reach the square with his move or he must already be inside, we shall observe this: if the king chased the pawn from the rear (in this example it might be from b3), should he be inside the square before moving? Of course not: therefore, it would be the same if the king came from farther away, be it from the pawn's rear or from its side.

2.a5

It is clear that, in this case, the enemy king has not reached the square of the pawn, so White wins.

2...Ke6 3.a6 Kd6 4.a7 Kc7 5.a8Q

1-0

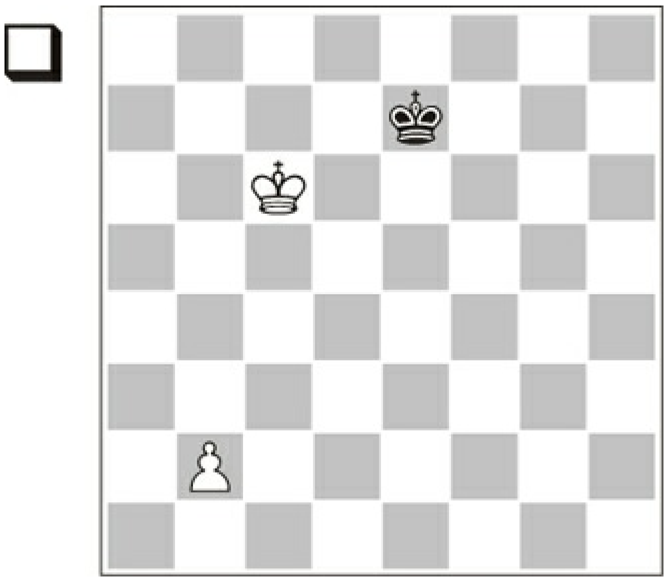
Blocking the way and supporting the pawn with the king

Let us now look at Position 1.3. The black king has clearly reached the square. Now the pawn can promote only with the aid of the king. The easiest way is by blocking the enemy king's way.

This concept of *blocking* appears very often in pawn endings, but also in many others, and it is at the core of Rook vs. Pawn endings.

We can now state the second rule, which works with almost all pawns, the exception being the rook's pawn.

When possible, the stronger side's king will prevent its rival from standing in front of the pawn. If he succeeds, the pawn promotes.



Position 1.3

1.Kc7!
Preventing …Kc8 followed by …Kb8 to stand in the pawn's way. Besides, from this square the king secures the pawn's path to b8.
1…Ke6
Since the black king cannot get in front of the pawn, he tries to attack the pawn before it reaches the secure zone (b6-b7-b8).

Let us use this example to point out that, if the stronger side's king has secured the side opposition on the 7th rank, the defender will not be able to disturb the pawn.
2.b4 Kd5 3.b5 1-0

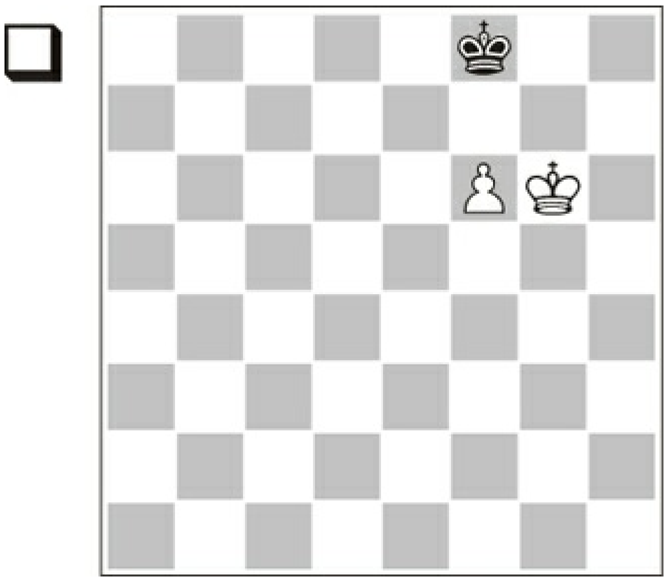
ENDING 2	The pawn is on the 6th rank

Opposition

We have just seen what happens in the two simplest cases:

1. When the king does not support the pawn.
2. When the king supports the pawn by preventing the enemy king from standing in its way.

However, the most interesting situation in a King + Pawn vs. King ending occurs when the defending king occupies a key square in front of the pawn. Then, everything depends on the relative position of the kings.

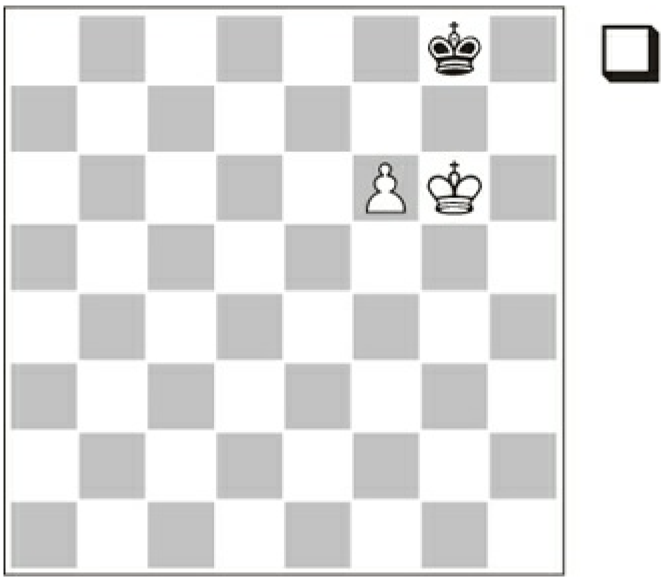


Position 1.4

The first important position, which we must fix in our minds, occurs when the pawn has reached the 6th rank and is only two steps away from the promotion square. Despite the proximity of the 8th rank, we will need to examine some positions before we grasp all the important details. In

Position 1.4 (previous page), the pawn can take its two last steps almost automatically.
1.f7!
The pawn moves ahead and Black must retreat his king; the white king can thus support promotion.
1...Ke7 2.Kg7! 1-0

However, the result changes completely if in Position 1.4 it is Black's turn. **The reason is that the pawn cannot promote if both kings are opposed when the pawn reaches the 7th rank.** Then we say that they are in opposition, like here after Black's first move:
1...Kg8!



Position 1.5

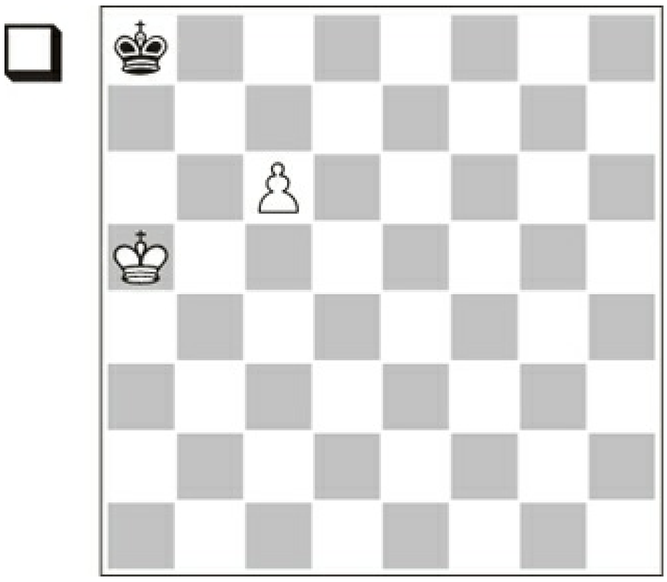
Now the kings are opposed and in this situation, **almost always**, the side that has the opposition has the advantage, and the side to move is at a disadvantage.
As stated above, opposition has gained an excessive prestige; in some cases it is not so useful. If we want to make the most of it, and not to let it deceive us, we just have to notice how it suits us in each case.

> **In a King + Pawn vs. King ending, king opposition is decisive when the pawn is on the 6th rank.**

This is the first important pattern we must recognise.
2.f7+
Here the pawn moves ahead but cannot promote. Anyway, other moves would not win against an accurate defence. For instance: 2.Kg5 Kf7! (2...Kf8 is also good). **The safest way for the defender is to stay on the two squares available in front of the pawn. This fortress cannot be broken.** If you have not done this before, it is worth observing and analysing this simple sequence: 3.Kf5 Kf8! (staying in front of the pawn is always the simplest way) 4.Kf4 Kf7! 5.Kf5 Kf8 6.Ke6 (if the defending king has always waited in front of the pawn, it is possible to get the opposition now that the enemy king must retreat from that file) 6...Ke8! 7.f7+ Kf8 8.Kf6 stalemate, as in the main line.
2...Kf8!
In contrast with Position 1.4, White is to move and to prevent the loss of the pawn, he must stalemate Black's king.
3.Kf6 and draw by stalemate.
In this ending we have seen that, if the defending king takes the opposition when the pawn is on the 6th rank, the pawn cannot promote. If we go deeper, we also see that the major obstacle for the white king has been his own pawn. Therefore, we can conclude that:

1. **The stronger side must not push the pawn too quickly.**
2. **The pawn should only reach the 6th rank in one of these two scenarios:**
   a. **its path to promotion is clear, or**
   b. **its advance causes the kings to be opposed**
   (but usually this only happens when the king has reached the 6th rank before the pawn)

Let us have a look at two more positions to consolidate some ideas related to the 6th-rank opposition. Then, our next positions will focus on how to manoeuvre before the pawn reaches the 6th rank.



Position 1.6

Regardless of the starting position of the kings: when the pawn is on the 6th rank, their manoeuvres are driven by opposition, as we will see in the analysis diagram and in the following position:

1.Ka6!

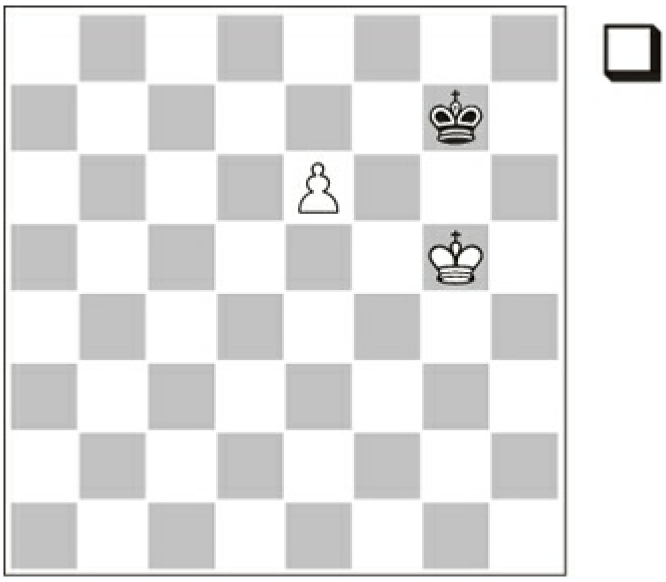
Taking the opposition. Not 1.Kb6?? Kb8! and it is Black who takes the opposition.

1...Kb8 2.Kb6! Kc8

2...Ka8 may be a clever attempt to induce a mistake, exploiting the proximity of the edge of the board, but fails against accurate play: 3.Kc7! (3.c7?? would be a gross mistake) 3...Ka7 4.Kd7 and the pawn promotes.

3.c7 Kd7 4.Kb7 and the pawn promotes.

Losing the opposition



Position 1.7

Most mistakes made in King + Pawn vs. Pawn endings occur in this position. The reason is that this

situation is just provisional: the black king cannot keep the opposition because the pawn controls the f7-square. As stated above, the best squares for the lone king are those in front of the pawn. Otherwise, he may not get there in the right circumstances. This occurs in the next example, which is also important to find out why opposition is sometimes useless. Black loses, no matter who has the move. If Black is to move, the white king will immediately take the opposition on the 6th rank; if White is to move…

1.Kf5!

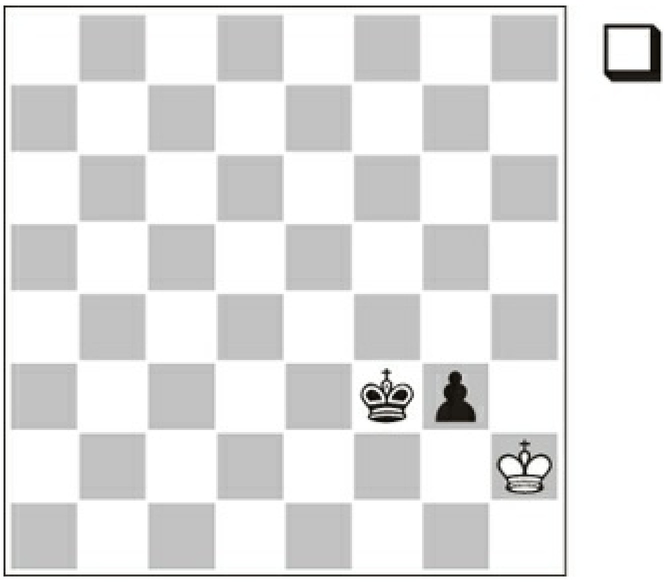
Now, wherever the black king moves, he loses the opposition. The important conclusion is:

Once we take the opposition, we lose it if one of the squares we need is out of reach.

1...Kg8 (1…Kf8 2.Kf6) **2.Kg6! Kf8 3.Kf6** The white king has gained the important 6th-rank opposition and wins. **3...Ke8 4.e7 Kd7 5.Kf7 1-0**

One last example to make sure that we have taken into consideration all the subtleties of this ending. Not all pawns work in the same way. As we get closer to the edge of the board, pawns usually have their own rules. Therefore, I will devote a special section to the rook's pawn. The knight's pawn is not so exceptional, but nevertheless it presents some peculiarities due to the proximity of the edge of the board.

Knight's pawn



Position 1.8

Let us have a look at the position. It is White's turn and he cannot take the opposition, while we know that if the king moves in front of the pawn he will have to retreat from his blocking position on his next move. This position would be lost if Black had a central pawn, but with a knight's pawn White can be saved thanks to a special detail.

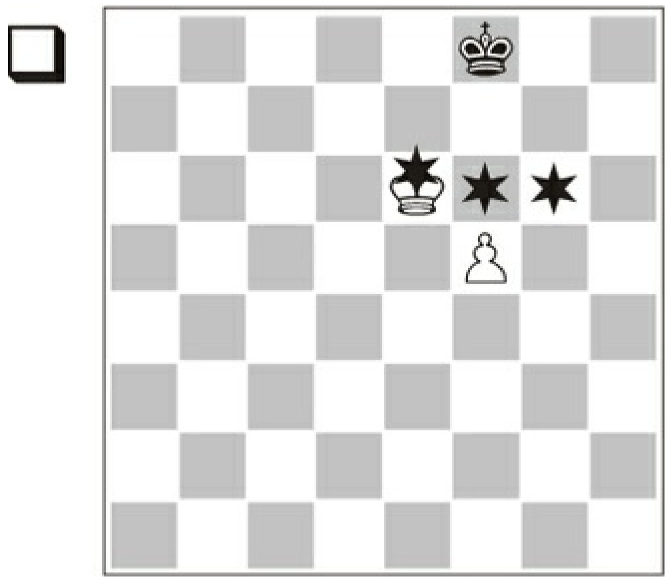
1.Kh1!

The right move. This relative position of the kings, called diagonal opposition, usually does not help much, but works in this case.

1...Kf2

This move would secure promotion with any other pawn, but now the white king is in stalemate and the position is drawn. The pawn cannot promote after other moves either, since the white king comes back to his impregnable position in front of the pawn: **1...Kg4 2.Kg2!=**.

ENDING 3	Key squares



Position 1.9

When the pawn has not reached the 6th rank yet, the analysis grows in complexity, but there are very clear rules. If we know them, we will play the ending with accuracy and we will quickly know whether the pawn promotes or not. The essential concept here is that of key squares. But what are key squares and what is their effect?

If the strong king occupies one of the key squares, the pawn promotes. When the pawn is on the 5th rank, its key squares are the three in front of it (e6, f6 and g6, marked in the diagram).

Since the king has reached one of them, White wins:

1.Kf6!

Of course not 1.f6?? Ke8!, taking the opposition and thus drawing. As we have said, there is no need to hurry to push the pawn. The white king must pave the way first.

1...Ke8

The black king has retreated from the pawn's path. What is the move that secures promotion?

2.Kg7!

Now the pawn's path is clear and promotion comes in three moves.

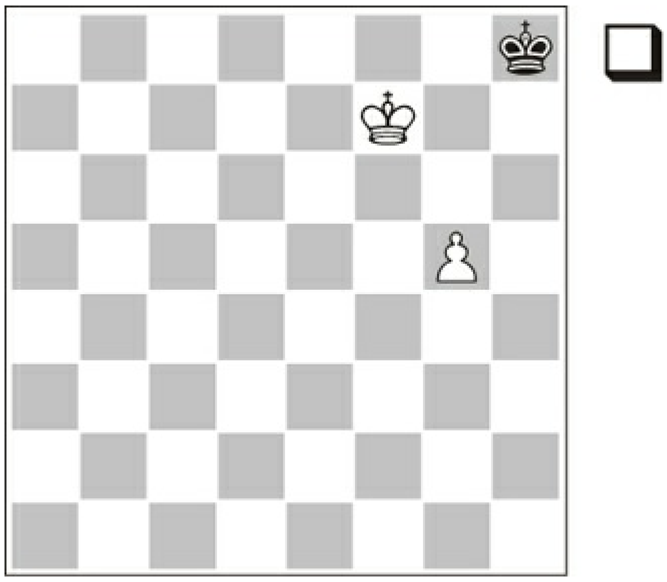
2...Ke7 3.f6+ Ke6 4.f7 1-0

If, in the starting position, the white king had been on g6, 1.Kf6 would have led to the same position; if on f6, White wins with 1.Ke6 Ke8 2.f6, taking the opposition in the key situation: when the pawn reaches the 6th rank.

Were it Black's turn in any of the three examples, White would win by means of one of those two manoeuvres: either supporting the pawn from the 7th rank or taking the opposition.

Therefore, we have seen that White wins if his king reaches any key square. That will condition our previous play.

Knight's pawn



Position 1.10

Once again, the knight's pawn poses extra difficulties, but the key square rule still applies. We just need to be slightly more careful.

1.Kg6!

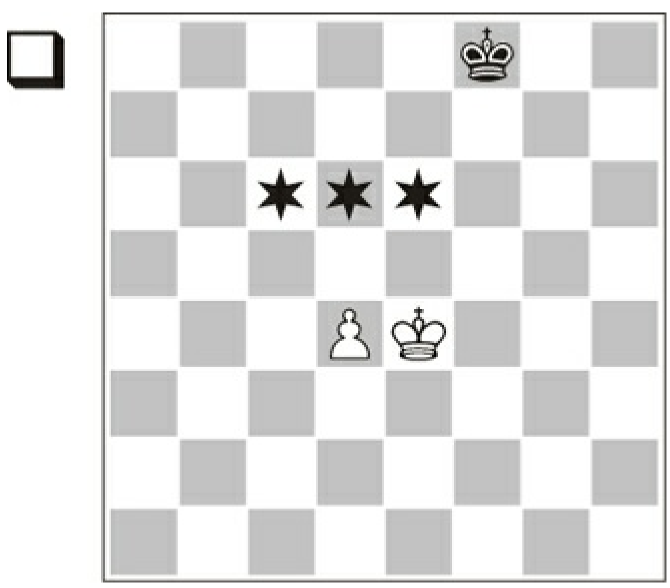
The king must go to the other side to skip annoying stalemate tricks. The alternatives are: **1.g6?** stalemate; **1.Kf6** This move does not let victory slip but, if Black plays accurately, White has to return to the starting position. 1…Kh7! (1…Kg8 2.Kg6 Kh8 3.Kf7 Kh7 4.g6+ Kh8 5.g7++–) 2.g6+?? (this move does miss the victory, as we have seen in Position 1.8. 2.Kf7! is the correct move, returning to the starting position) 2…Kh8! Now the pawn cannot be stopped.

1...Kg8 2.Kh6 Kh8 3.g6

With the king at this side of the pawn, promotion runs smoothly, as shown in Position 1.4.

3...Kg8 4.g7 Kf7 5.Kh7 1-0

Key squares when the pawn has not reached the 5th rank



Position 1.11

If the pawn has not reached the 5th rank, its key squares are two ranks ahead.

For example, for a pawn on the 4th rank, the key squares are on the 6th rank; in the diagram, c6, d6 and e6. But the rule still applies: if the white king occupies one, the pawn promotes. The key squares for a pawn on the 5th rank are the same as on the 4th rank. For a pawn on the 2nd or 3rd rank that rule (the key squares are two ranks ahead) is still valid. That is, for a d3 pawn, the key squares would be e5, d5 and c5; for a d2 pawn, e4, d4 and c4.

In the diagram position, the white king easily reaches one of the key squares, but sometimes opposition plays a role, causing the fight for the squares to be harder.

1.Kd5!

Heading for the key square c6. 1.Ke5?? would be a mistake: in the position after 1…Ke7,

opposition would be useful in the standard way: it prevents the enemy king from going further, in this case, from reaching the key squares.

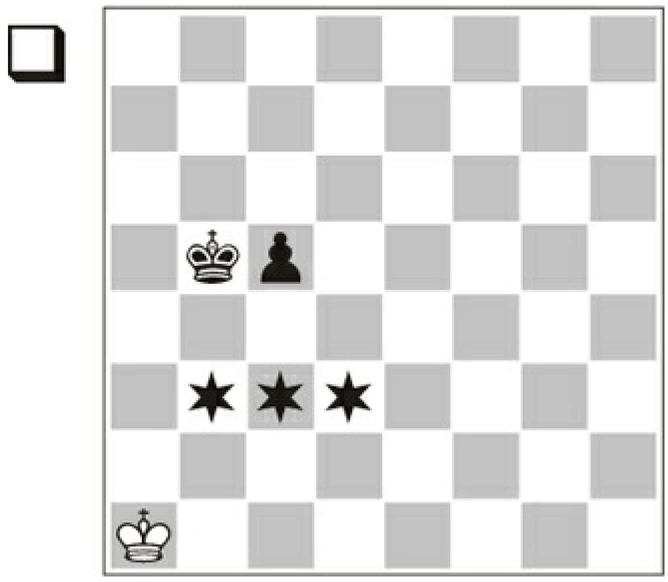
1...Ke7 2.Kc6

Once White has occupied one of the key squares, the pawn promotes; we already know the procedure.

2...Kd8 3.Kd6 Kc8 4.Ke7 Kc7 5.d5 Kc8 6.d6 Kb7 7.d7 1-0

Trying to analyse what would have happened if Black were to move in the starting position is a simple and interesting **Exercise.**

The distant opposition



Position 1.12

In the diagram position the fight for the key squares is tougher. We already know that, for a 4th-rank pawn, the key squares are two ranks ahead; in this case, b3, c3 and d3 (marked in the diagram).

We also know that opposition prevents the enemy king from going further, so if the strong king reaches the 5th rank and then his counterpart takes the opposition from the 2nd rank, the former will not make progress or occupy the key squares. However, if the white king moves to the 2nd rank, it is Black who takes the opposition. What to do then? Sometimes we can succeed thanks to the so-called distant opposition.

1.Kb1!

When both kings are on the same file separated by an odd number of squares (3 or 5), we talk about distant opposition. This is an effective way to restrict the enemy king's progress. For example, in this case the black king can gain a rank, but no more, as then his white counterpart will oppose him, taking the direct opposition. Thus the white king prevents him from advancing two ranks and getting to the key squares.

It is interesting to note that Black cannot win, even if it were again White's turn. Distant opposition can be lost, the same as direct opposition (see Position 1.7), if some squares are out of reach. Now White would play Kc1 and Black would lose the opposition because ...Kc5 is impossible.

1...Kb4

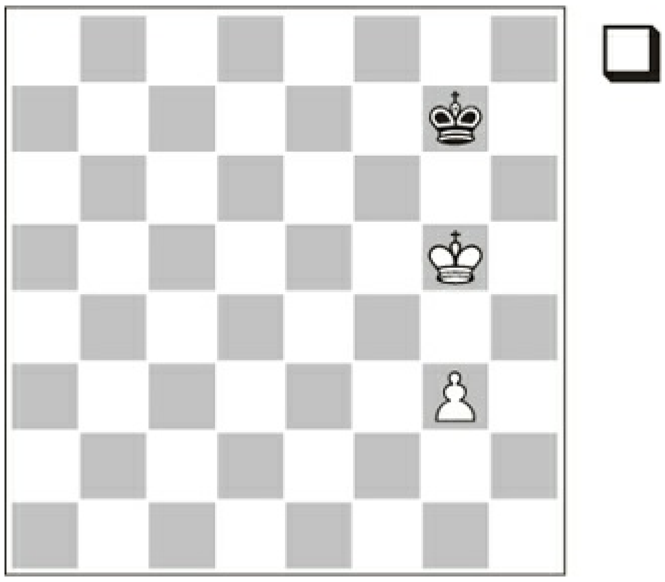
If 1...Kc4, then 2.Kc2, always taking the opposition and hindering progress.

2.Kb2!

Immediately taking the direct opposition, thus preventing the king from reaching the key squares.

2...c4 3.Kc2 c3 4.Kc1 Kb3 5.Kb1 c2+ 6.Kc1 Kc3=

Using reserve moves



Position 1.13

Remember that the key squares for a 3rd-rank pawn are two ranks ahead. Thus, here the key squares are f5, g5 and h5. The white king is already there, so White should win, but how to outflank the opposing king?

This is possible thanks to a reserve move with the pawn.

1.g4

As the kings are opposed, White pushes the pawn, giving Black the move. Thus the white king will reach the new key squares on the following move.

1...Kh7

1...Kf7 2.Kh6 would not change matters.

2.Kf6

Now the king has occupied the key squares for the pawn on the 4th or even the 5th rank. Thus, the pawn could go that far, but there is an easier way.

2...Kh8

2...Kh6 3.g5+ Kh7 4.Kf7; 2...Kg8 3.Kg6 Kf8 4.Kh7 and the pawn's path is clear.

3.Kg6 Kg8

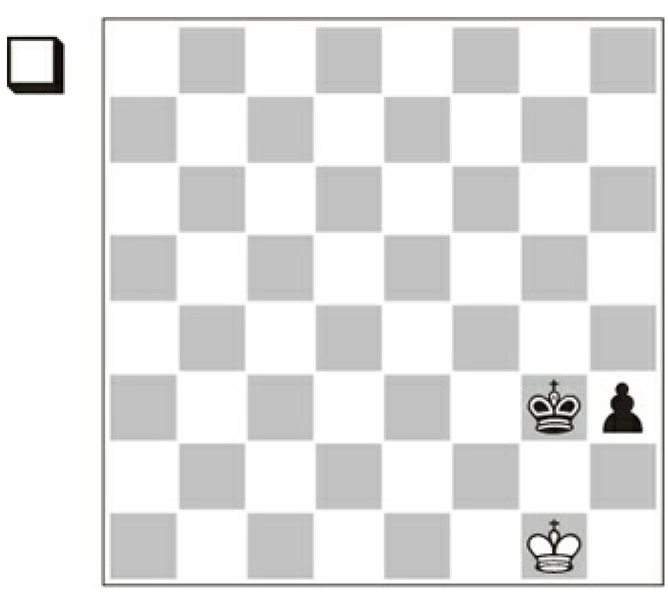
The black king takes the opposition again, but once more White has a reserve move.

4.g5! Kh8 5.Kf7

And the pawn promotes straight away:

5...Kh7 6.g6+ Kh6 7.g7 1-0

ENDING 4 — The rook's pawn. Defending king in front of the pawn



Position 1.14

So far, everything we have said is valid for all pawns with the exception of the rook's pawn, which

deserves special attention.

In a pawn ending, the rook's pawn is the most difficult to promote. It requires its path to be clear. The reason is the possibility of a stalemate when the pawn reaches the 7th rank supported by the king, no matter from where. This new situation renders useless all our rules about the range, the opposition and the key squares stated in the previous endings.

In this position it doesn't matter who is to move: this is always a draw.

1.Kh1

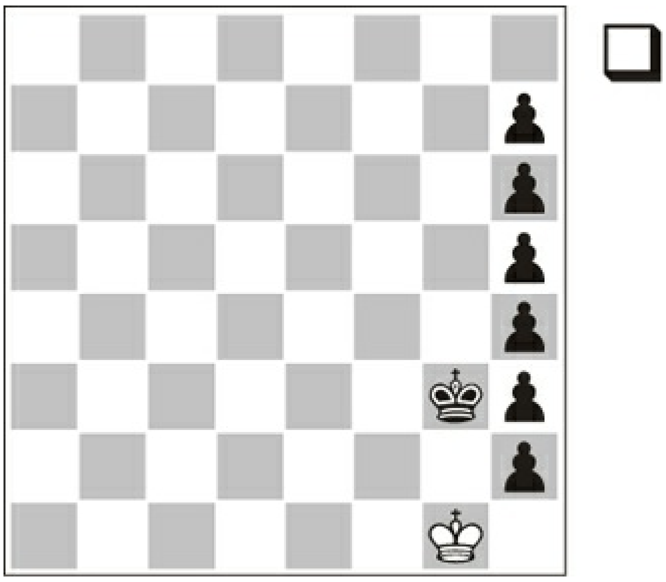
White loses the opposition, but no matter: there is a stalemate.

1...h2

Stalemate.

Conclusion: With a rook's pawn, if the defender's king stands in the way, it is a draw.

Quantity is not quality



Position 1.15

Though we are studying single-pawn endings, exceptionally I will show you this diagram – an imaginary position, it cannot be reached in an actual game! – to illustrate the idea that there is little hope of promoting a rook's pawn.

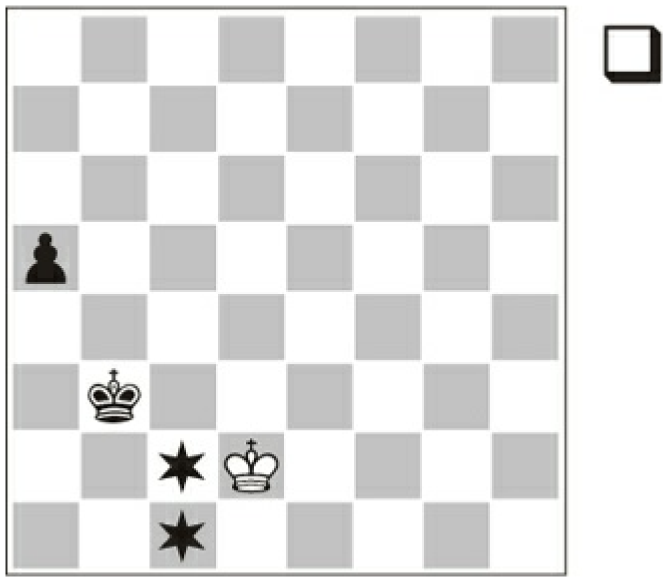
We can see here that **if the defending king stands in the pawn's path**, not even 6 rook's pawns are enough to win.

1.Kh1 Kf3 2.Kxh2 Kg4 3.Kh1 Kg3 4.Kg1 h2+ What else? **5.Kh1 Kg4 6.Kxh2 h3 7.Kh1 Kg3 8.Kg1 h4 9.Kh1 h5 10.Kg1 h6 11.Kh1 Kf3 12.Kh2 Kg4 13.Kh1 Kg3 14.Kg1 h2+ 15.Kh1**

And again the only way to avoid stalemate is giving up the pawn and so either we lose all pawns or we cannot advance them.

ENDING 5	Imprisoning the stronger side's king

Unfortunately for the strong side, standing in the pawn's path is not the only way for the defender to draw this ending. The vicinity of the edge of the board can also dramatically restrict the mobility of the stronger side's king.



Position 1.16

In the diagram position Black threatens 1…Kb2, securing the pawn's path to promotion. But it is White's turn:

1.Kc1! Preventing 1…Kb2 and threatening 2.Kb1.

1...Ka2

The only way to prevent the white king from getting in the pawn's way. However, after this move the black king loses his mobility and will not be able to let his pawn advance. 1…a4 2.Kb1 a3 3.Ka1 leads to a well known drawn position.

2.Kc2!

Now White will not allow the king out of the corner. The rest is quite easy.

2...a4 (2…Ka3 3.Kb1=) **3.Kc1 a3 4.Kc2 Ka1 5.Kc1**

Nothing can be done. The king cannot get out and if Black pushes the pawn, his king is stalemated.

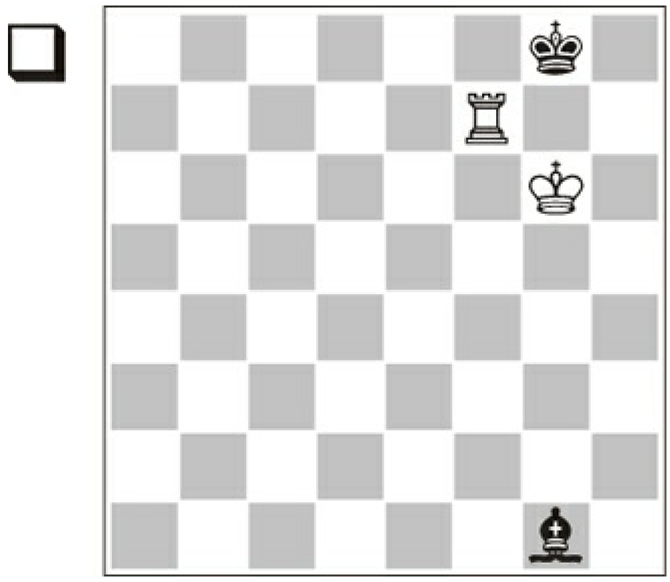
This is so clear that we could add many doubled rook's pawns to the diagram and still Black could not win.

Conclusion: In order to draw against a rook's pawn, placing the King in front of the pawn is enough, but occupying one of the two nearest squares on the bishop's file also works. In this example, the c1- and c2-squares.

ENDING 6 Rook vs. Bishop. The wrong corner

The ending Rook vs. Bishop is usually a draw. However, the defender has to be careful with some positions when the king is pushed to the edge of the board. This is especially dangerous when the king is pushed to the wrong corner.

In a Rook vs. Bishop ending, the wrong corner is the corner of the same colour as the squares on which the bishop moves.



Position 1.17

In the diagram position, the black king cannot move away from the corner and Black loses, no matter where the bishop is.

1.Rf1

The winning plan is to force the bishop out of its safe place behind the white king, thus winning time to threaten checkmate on the 8th rank. 1.Rb7?? threatening mate would be a gross mistake: after 1…Kf8 the black king cannot be forced back to the wrong corner.

1…Bh2

Trying to stay in the safe zone, but there are not enough squares, as we will see in three moves. Other moves lose quickly. For instance: 1…Bd4 2.Rd1 Bb6 3.Rb1 Bc7 4.Rc1 and Black cannot hinder the 8th-rank check any more.

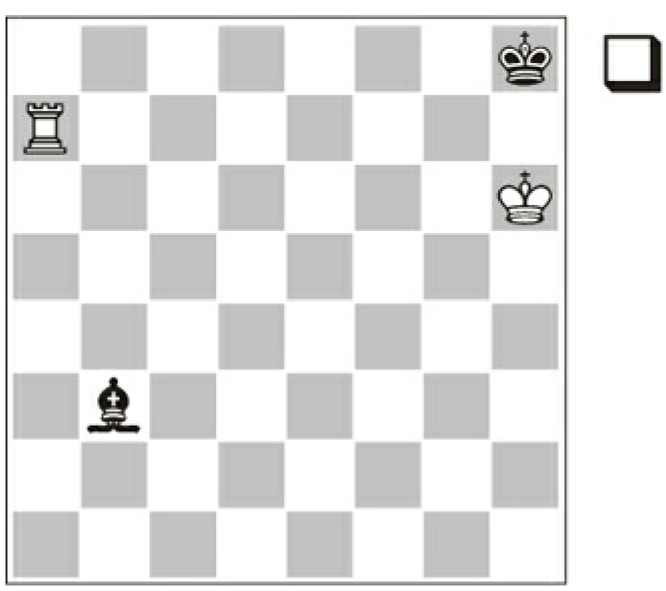
2.Rh1 Bg3 3.Rg1 Bh2 4.Rg2

The rook takes control over two of the safe squares; a discovered check with the king mines a third one (the f4-square). Therefore, the bishop is forced out to open field, and the white rook can exploit its position to win a decisive tempo.

4…Bd6 (4…Bf4 5.Kf5++–) **5.Rd2 Be7 6.Rc2** (6.Rd7? Kf8 draws) **6…Bf8 7.Rc8** and Black is checkmated.

ENDING 7 — Rook vs. Bishop. The right corner

The other corner is a completely different story. It is so easy to defend this ending from the right corner that going there straight away is a perfectly sound idea.



Position 1.18

The black king stands in the corner, while the bishop is ready to interpose on g8 in case of a check. Then White would have to let the bishop move to avoid stalemate, and the position would

be repeated. There are no serious winning chances.

1.Ra8+ Bg8

Now either the rook or the king must release the pressure on the enemy pieces to avoid stalemate.

2.Ra7

2.Kg5 Kg7 3.Ra7+ Kh8 4.Kg6 Bc4 5.Ra3 Bd5 6.Rh3+ Kg8 7.Re3 Kh8 is similar.

2...Bb3 3.Kg6

3.Rh7+ Kg8 4.Rb7 Bd5. The bishop always has enough squares at its disposal along the a2-g8 diagonal.

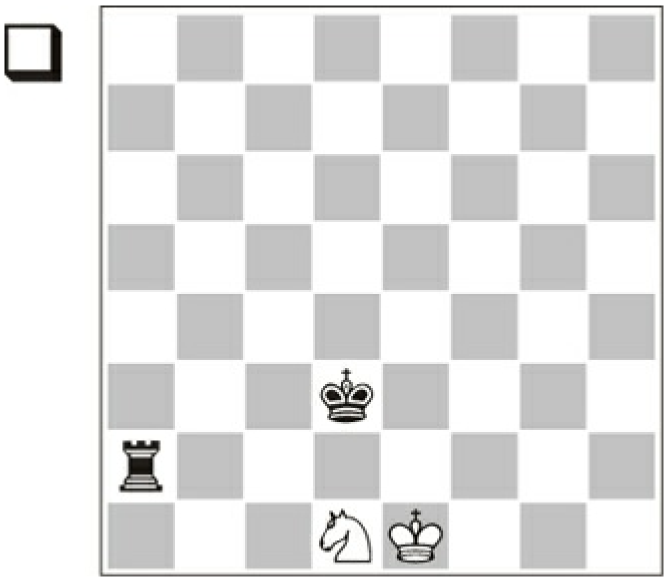
3...Bc4

The only concern for the defender is that his bishop has enough distance to check the enemy king from the b1-h7 diagonal if necessary. Thus 3...Be6?? would be bad due to 4.Rh7+ Kg8 5.Re7 winning. The position is safe once this danger is averted.

4.Rh7+ Kg8 5.Rc7 Bd3+ 6.Kh6 Be4=

ENDING 8 — Rook vs. Knight. At the edge of the board

When fighting against a rook, the knight may have more trouble than the bishop. Nevertheless, most positions are drawn. **In this ending, keeping the knight close to the king is the best policy. If the knight is separated from the king, it can be lost.**



Position 1.19

No problems for White, though both the king and the knight have been driven to the edge of the board. Not so when they are in the corner. Moreover, this position has great theoretical importance, as it usually occurs as a result of a Rook vs. Pawn endgame, as we will see in the corresponding section.

When the knight and the king are together on the edge, moves are usually forced, but then there is a lower risk of blundering. The knight should not be separated from the king in any circumstances, though this does not necessarily imply an automatic defeat. The first move is clearly forced.

1.Nf2+ Ke3

The next move is also forced, following the rule of keeping together knight and king, although the check on g4 does not lose here.

2.Nd1+ Kf3

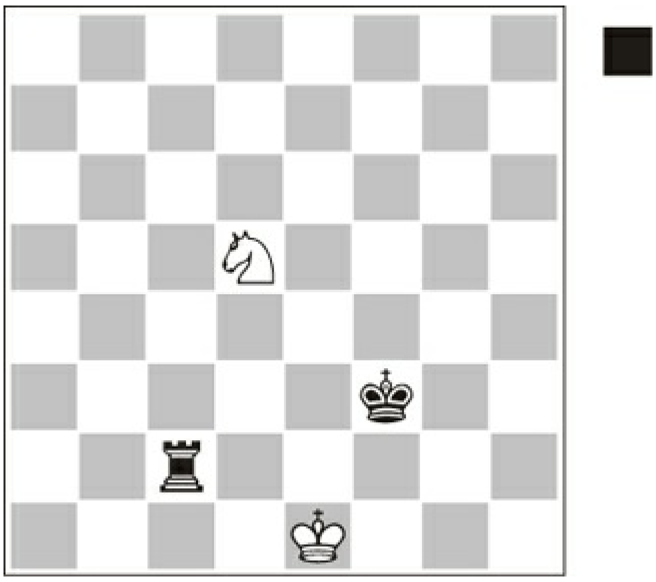
Now White has two options that may lead to the same position some moves later.

3.Nc3

3.Kf1 Re2 4.Nc3, and either the king or the knight will return on the next move. This is the only case where the king and the knight are separated for a moment.

3...Rc2 4.Nd1

Let's see what would happen if the knight preferred to ride in the open field. 4.Nd5??



Position 1.20
(analysis diagram)

Once the knight has moved away from the king, it is very likely to be lost. That is the case here, though very often the process of trapping the knight presents tactical difficulties. The stronger side must restrict the knight's movements, as well as exploiting double threats and pins to close the trap.

4...Rc4 (depriving the knight of the b4-square. It must go even further away) 5.Nb6 (if 5.Nf6 Rd4, taking away most of the squares for the knight: 6.Nh7 Kf4 7.Nf8 Kf5–+) 5...Rb4 6.Nc8 (there is no way back: 6.Nd5 Re4+ 7.Kf1 Rd4 8.Nc3 Rd3–+) 6...Rb7! (all the knight moves are controlled directly or indirectly) 7.Kd2 (7.Nd6 Re7+ 8.Kf1 Rd7–+) 7...Kf4 and the black king moves over to capture the knight: 8.Ke2 Ke5–+. Concrete analysis is complicated, but the important thing to remember is that separating the knight from the king should be avoided at all costs.

4...Re2+ The only way to divide the white army, but just for a moment.

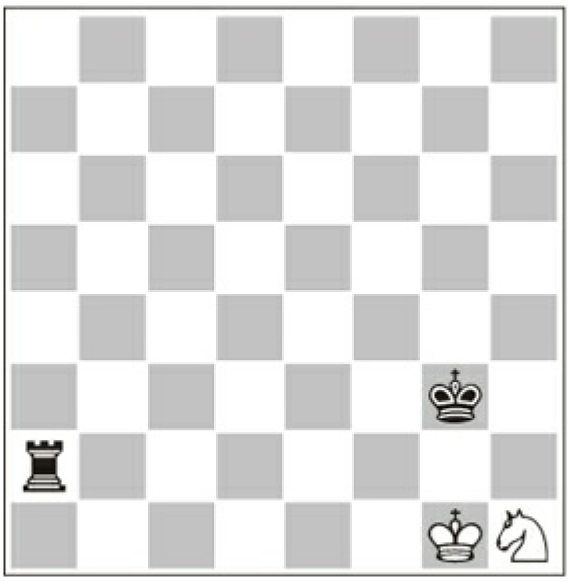
5.Kf1 Rh2 6.Ke1 The king comes back immediately. **6...Rc2 7.Kf1=**

ENDING 9 — Rook vs. Knight. In the corner

Things are radically different when the king and the knight are at one corner of the board, no matter who occupies the corner-square. Their mobility is then restricted and the position becomes immediately lost. Even if the knight occupies the g2-square (an especially unfortunate square for the knight) most cases result in a defeat.



Position 1.21



Position 1.22



Position 1.23

There is no need for a deep analysis and it does not matter which side is to move: in all these positions White loses the knight straight away.

The third diagram is especially impressive: the knight is not even on the edge of the board, but it is lost anyway. This is our first example of a 'knight's dumb square' and its effects, but it will not be the last.

Conclusion: In the battle Knight vs. Rook there are two scenarios the defender should avoid:

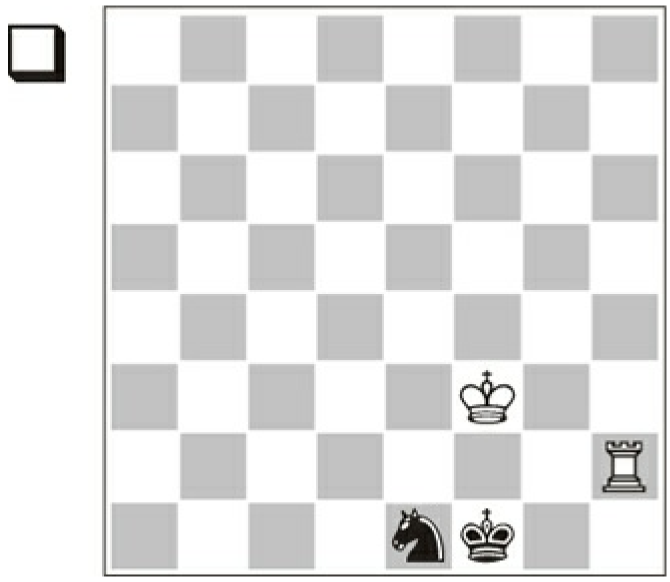
1. **The knight is separated from the king.**
2. **Both pieces are trapped in the corner (even if the knight is on the g2-square).**

Both endings mixed in a recent game

I have presented here a Rook vs. Knight ending because the basic ideas are 1) simple and 2) a must for all players.

It is true, though, that the trapping phase can sometimes be complicated. Also, some positions with the king and the knight on the edge require an accurate defence, although those cases follow the general rule that the defender only loses if one of the pieces is in the corner.

When I was rounding off this book, two top players played a surprising endgame whose result amazed everyone who likes studying chess (or so I thought). It is a remarkable ending, because it contains the ideas shown in the previous two endings and illustrates the difficulties of certain positions when the king and the knight are on the edge. Therefore, I thought it was worth including it here although, due to its complexity, I do not recommend learning it by heart, like the previous ones. I will not comment in detail on all possible lines for the same reason.



Position 1.24

Kamsky – Bacrot

Sofía 2006

Bacrot had reached this position after an accurate defence of first a Rook + Pawn vs. Rook + Pawn, and then a Rook + Pawn vs. Rook ending (see Question 28 in the Final Test). He has just promoted to a knight, which, as we shall see in Ending 23, is the standard way of saving these positions. Now he has a supposedly well known drawn ending. I assume that at this point he relaxed, and he was probably in time trouble.

Nevertheless, there is a special circumstance, which is interesting for us from a theoretical point of view: the knight is 'within range' of its dumb square (g2) and the king is placed on the knight's side next to that square. Defending this ending is somewhat difficult.

1.Kg3 Nd3 2.Rd2 Ne1 3.Rf2+ Kg1 4.Rf8 Ng2

So far everything has been forced. Now Black's troubles start. The knight must go to the dumb square or move away from the king. Intuitively the natural option is **4…Nd3?**, which loses due to 5.Kf3 Ne1+ 6.Ke2+–. On the contrary, **4…Nc2** leads to a draw, which I consider the easiest way, but over the board one tends to avoid taking the knight so far away: 5.Kf3 Kf1= with no real problems for Black.

Thus, some logical doubts arise: may it be that, if we promote on that square and have the king on that side of the board, the knight is forced to go to the dumb square, thus losing? Well, it is not so, but it is worth noting the difficulties.

5.Kf3 Kf1?

Actually, this is the losing move. That should not be surprising: with the knight on the g2-square, the defender is very likely to lose. The correct defence, not easy to find, was 5…Nh4+ 6.Ke3 Kg2 7.Rg8+ Kh3 8.Kf2 Kh2= and in practice Black has managed to return to the starting position.

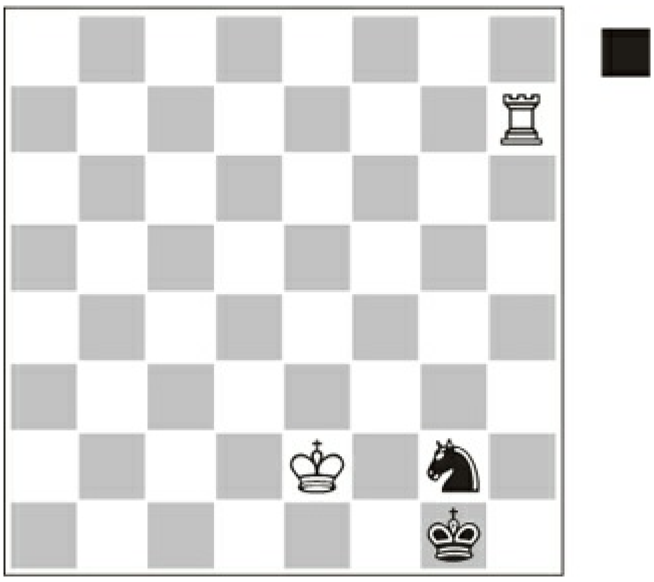
6.Kg3+?

Kamsky misses his first chance to win: 6.Rf7!.

6...Kg1 7.Kf3 Kf1? 8.Rf7!

An amazing zugzwang position.

8...Ne1+ 9.Ke3+ Kg1 (9…Kg2 10.Ke2+–) **10.Ke2 Ng2 11.Rh7**



Position 1.25

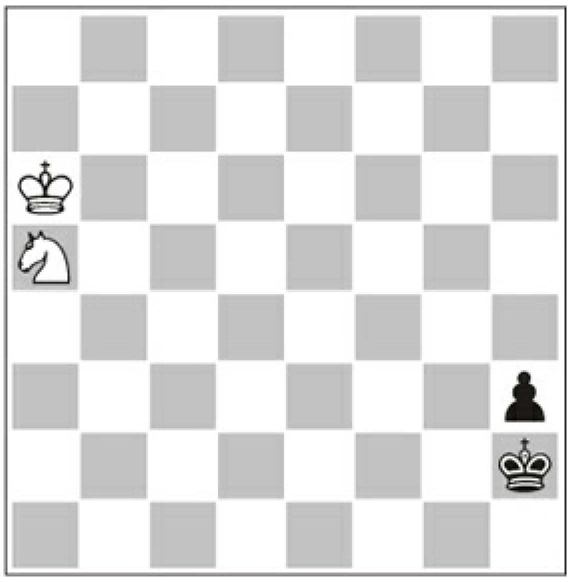
11...Nf4+ 12.Kf3 Nd3 13.Rh4 Ne5+ 14.Ke2?

Just an example of how difficult this stage is, we already know from Position 1.20. 14.Ke3!+–.

14...Kg2! 15.Re4 Nf7? (15...Nd7!=) **16.Re7 Nd6 17.Rg7+ Kh3 18.Kf3 Kh4 19.Kf4 Kh5 20.Re7 Nc4 21.Re6 Nd2 22.Rc6 Nb3 23.Ke3 Kg4 24.Rc4+ Kg3 25.Rc3 Na5 26.Ke4+ Kf2 27.Kd5 Nb7 28.Rb3 Nd8 29.Rb8 1-0**

2. Basic Test

Exercise



2.01 White to move.
Is it a draw?

Solution

2.01 Yes, 1.Nc4! Kg2 2.Ne3+ Kf2 3.Ng4+= The white knight enters the right circuit.

Exercise



2.02 White to move.
Is it a draw?

Solution

2.02 No. 1.Nf3+ Kg2 2.Ne1+ Kg3–+ the pawn promotes.

Exercise

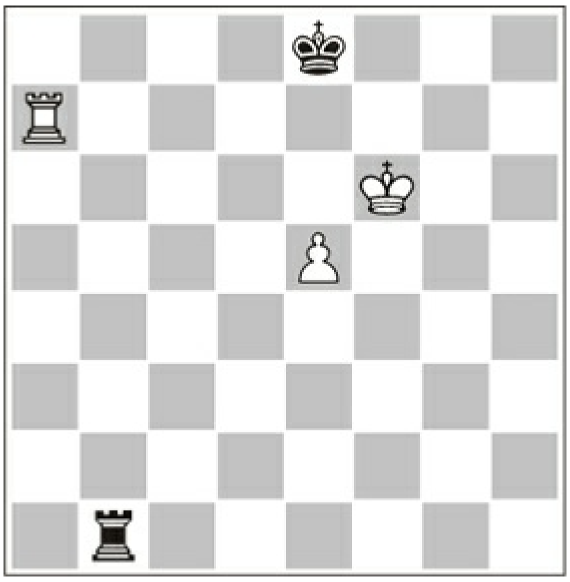


2.03 White to move.
Is it a draw?

Solution

2.03 No, because the king is inside the winning zone. 1.Qd4+ Ke2 2.Qc3 Kd1 3.Qd3+ Kc1 4.Kc4! Kb2 5.Qb3+ Ka1 6.Qc3+ Kb1 7.Kb3 c1Q 8.Qd3+ Ka1 9.Qa6+ Kb1 10.Qa2 mate.

Exercise



2.04 Black to move.
What should you play and with which result?

Solution

2.04 1…Re1!. Since it is impossible to get to Philidor's position, Black tries K&H, other moves lose. See **Ending 56**.

Exercise

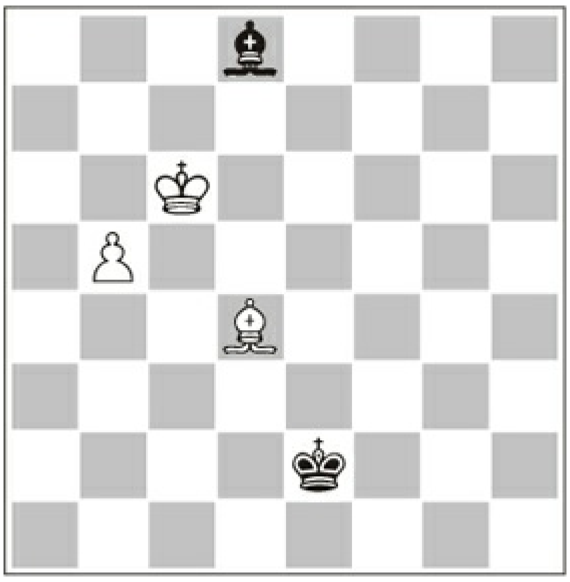


2.05 White to move.
What should you play and with which result?

Solution

2.05 1.Nf2!. Setting up a barrier. 1…Kc3 (1…Ke3 2.Ng4+; 1…Ke5 2.Ng4+) 2.Kd6 Kd2 3.Ke5 Ke2 4.Nh1 Kf3 5.Kd4! Kg2 6.Ke3 Kxh1 7.Kf2=.

Exercise



2.06 Black to move.
Is it a draw?

Solution

2.06 Yes: the black king takes the rear opposition. 4...Kd3! 5.Bb6 Bg5 6.Bc7 Be3 7.Bd6 (7.Kb7!? Kc4 8.Ka6 Kb3! 9.Bb6 Bg5 10.Bf2 Bd8 11.Be1 Ka4!=) 7...Kc4!=.

Exercise



2.07 White to move.
Is it a draw?

Solution

2.07 White wins because the h6-f8 diagonal has just 3 squares. 1.Bh6 Kh5 2.Bg7 Bd2 3.Bd4 Bh6 4.Be3 Bf8 5.Bd2 Kg4 6.Bh6+–.

Exercise

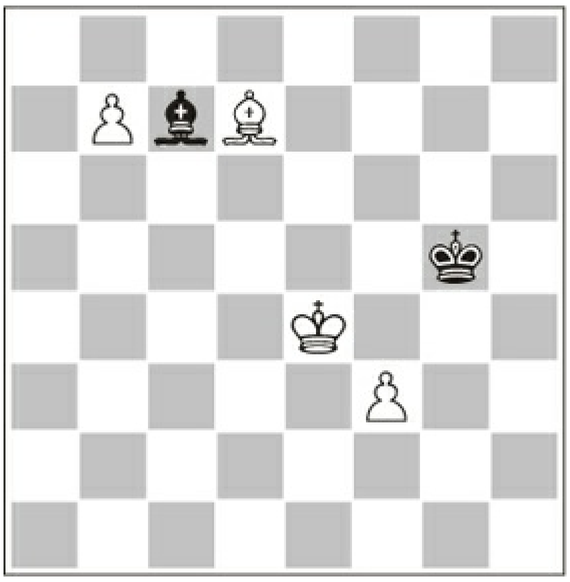


2.08 Black to move.
Is 1…Bc4 a good or a bad move? Or is it irrelevant?

Solution

2.08 1…Bc4 is a mistake, the correct move is 1…Bd7 (1…Bc4? 2.Bg5 Bb3 3.Kd4 Ba2 4.Kc5 Bb3 5.Kd6 Bc4 6.e6++–) 2.Bg5 Bc8!= 3.Kf4 Bd7=.

Exercise



2.09 White to move.
Is it a draw?

Solution

2.09 It is a draw: the black bishop controls both enemy pawns from the same diagonal and the blockade cannot be lifted. 1.Bc8 Bh2 2.Kd5 Kf6 3.Kc6 Ke7 4.Kb6 Bb8! 5.Bg4 Kd6 6.Bh3 Ke7 7.Kc6 Bf4=.

Exercise

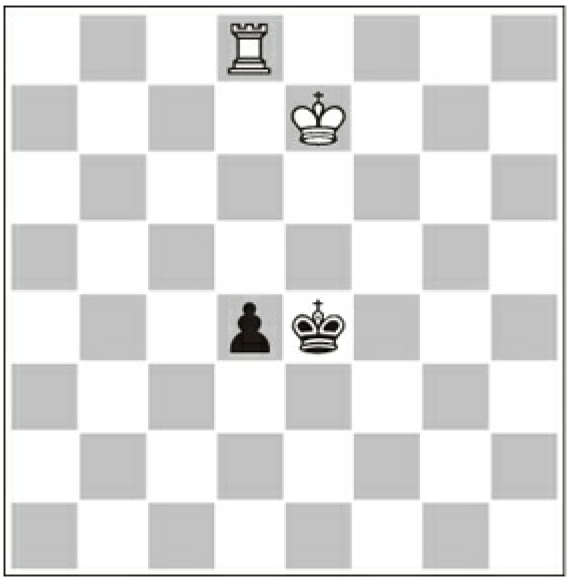


2.10 Black to move.
Is it a draw?

Solution

2.10 No. Black wins: his pawns are too far apart for the defender to cope. For example: 1...Kf6 2.Kg4 Ke5 3.Bc2 g5 4.Bd3 a5 5.Bc2 Kd4 6.Kf3 Kc3 7.Bd1 Kb4 8.Ke2 Bf4 9.Kd3 a4 10.Kc2 a3 11.Kb1 Kc3 12.Ka2 Bd6 13.Bg4 Kd2 14.Kb1 Ke3 15.Ka2 Kf4 16.Bd1 g4 and so on.

Exercise

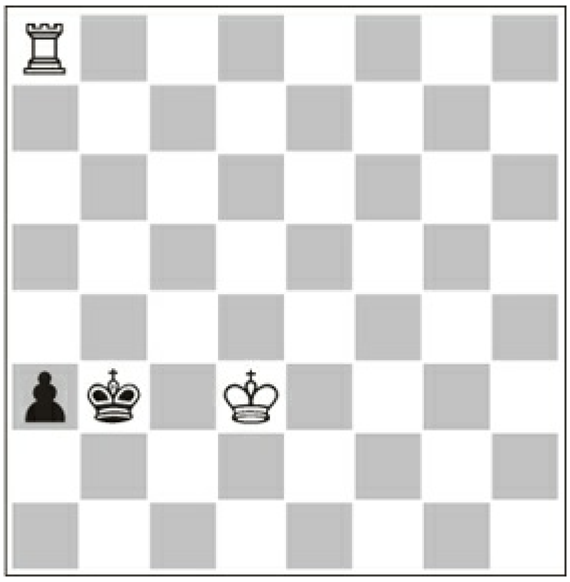


2.11 White to move.
What should you play and with which result?

Solution

2.11 White wins by outflanking his opponent: 1.Kd6! d3 2.Kc5 Ke3 3.Kc4 d2 4.Kc3+–.

Exercise

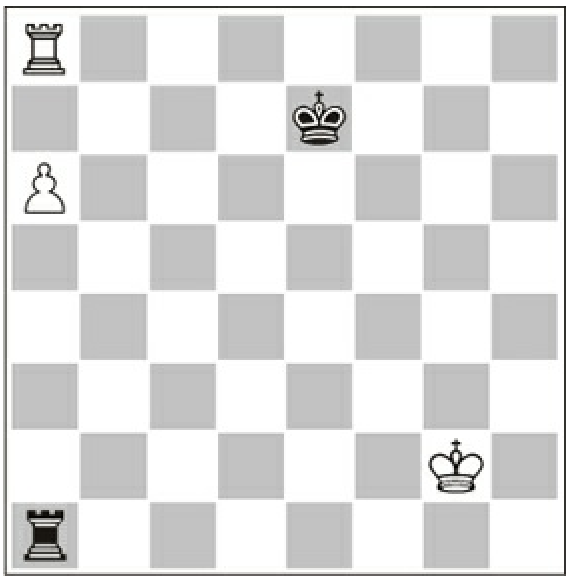


2.12 Black to move.
Is it a draw?

Solution

2.12 Yes, 1…Kb2! (1…a2? 2.Rb8+ Ka3 3.Kc2 a1N+ 4.Kc3+–) 2.Rb8+ Kc1! 3.Ra8 Kb2 4.Kd2 a2 5.Rb8+ Ka1! (5…Ka3 6.Kc2+–) 6.Kc2=.

Exercise

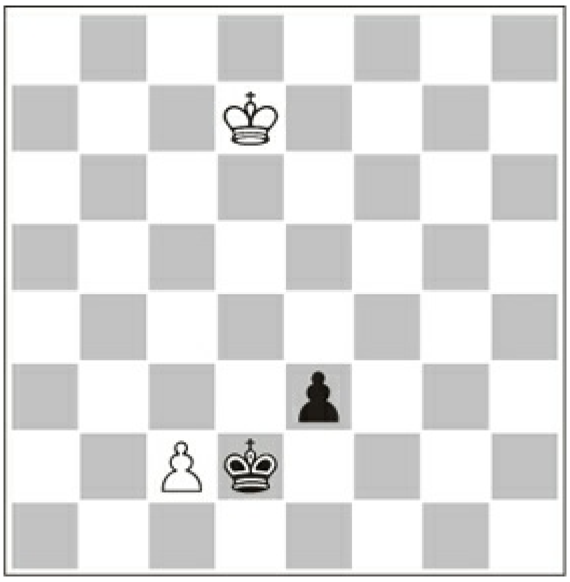


2.13 White to move.
Can he win?

Solution

2.13 1.a7! Kf7 (1...Kd6 2.Rd8++–) 2.Rh8+–.

Exercise

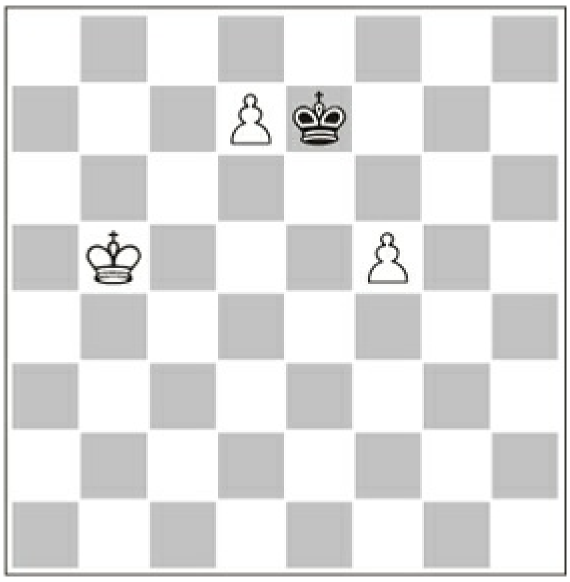


2.14 White to move.
Is it worth playing on?

Solution

2.14 White can draw: 1.c4 e2 2.c5 e1Q 3.c6 Black has no checks and the white pawn reaches the 7th rank.

Exercise

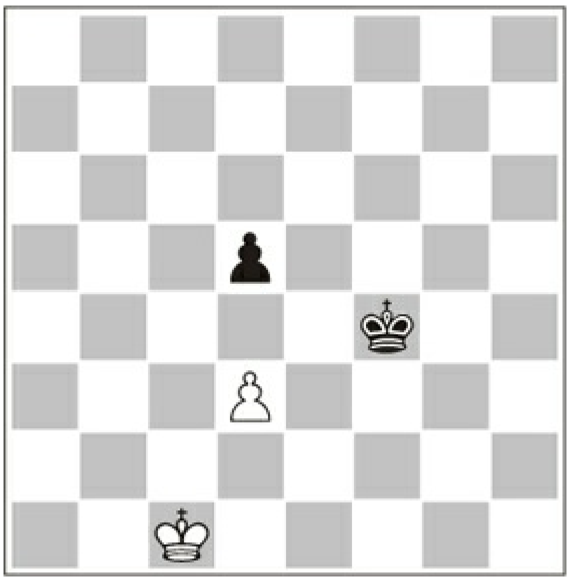


2.15 White to move.
Can he win?

Solution

2.15 Yes, 1.Kc6! Kd8 2.Kd5 Kxd7 3.f6+–.

Exercise



2.16 White to move.
What should he do and with which result?

Solution

2.16 1.d4! (1.Kd2?? d4 2.Ke2 Kg3 3.Kd2 Kf3 4.Kc2 Ke2 5.Kc1 Kxd3 6.Kd1 Kc3 7.Kc1 d3–+) 1...Ke4 2.Kc2 Kxd4 3.Kd2!=.

Exercise

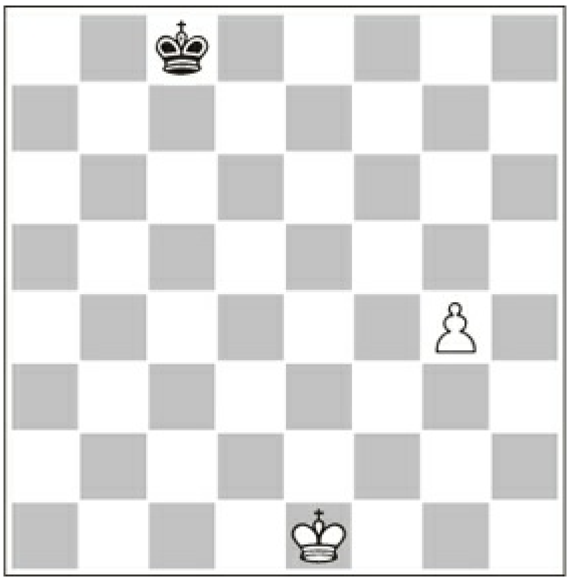


2.17 White to move.
Can he draw?

Solution

2.17 Yes, by finding the right circuit for the knight. 1.Nf4! (1.Nf2?? c2 2.Nd3+ Kd2 3.Nc5 Kc3 4.Ne4+ Kb4 5.Nf2 Kc4–+) 1...c2 2.Ne2+! Kd2 (2...Kd1 3.Nc3+ Kd2 4.Na2) 3.Nd4=.

Exercise

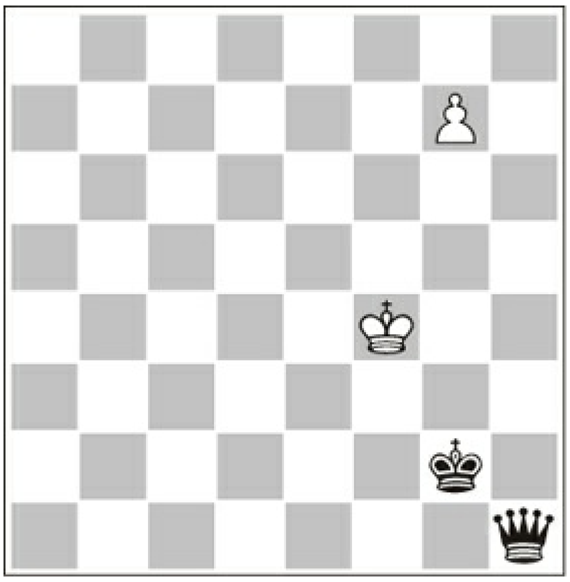


2.18 White to move.
Can he win?

Solution

2.18 1.Kf2! is the only way to reach the key squares. 1…Kd7 2.Kg3 Ke6 3.Kh4 Kf6 4.Kh5 Kg7 5.Kg5 Kf7 6.Kh6+–.

Exercise

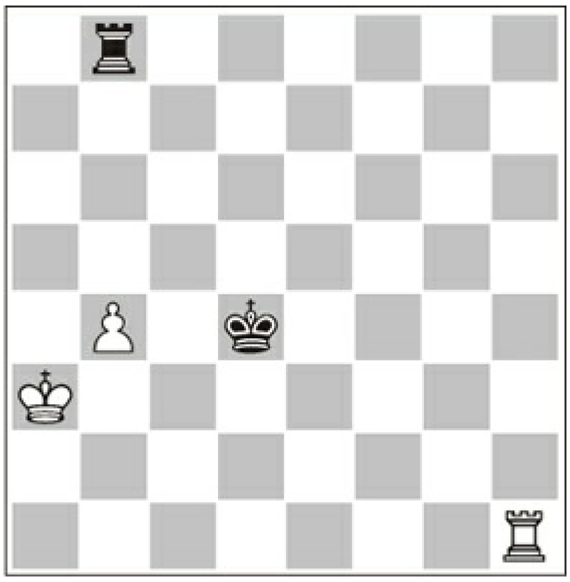


2.19 White to move.
What is the correct result?

Solution

2.19 Draw. 1.g8Q+ Kf1! (1…Kf2 2.Qa2+ Kf1 3.Qb1+ Kg2 4.Qc2+ Kh3 5.Qd3+ Kg2 6.Qe2+ Kg1 7.Kg3+–) 2.Qc4+ Kg1! 3.Qc1+ Kh2!=.

Exercise

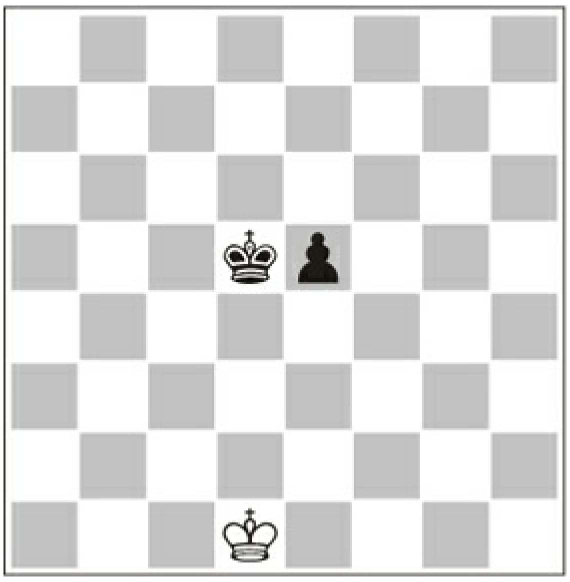


2.20 White to move.
Can he win?

Solution

2.20 Yes, by cutting the king off: 1.Rh5!. See **Ending 62** (1.Rc1 Kd5= see **Ending 59**).

Exercise

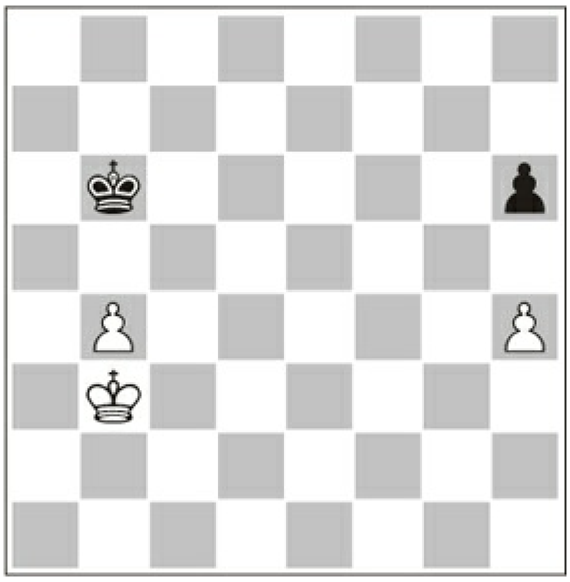


2.21 White to move.
What is the correct result?

Solution

2.21 Draw. 1.Ke1!= Ke4 2.Ke2.

Exercise



2.22 White to move.
Can he win?

Solution

2.22 1.h5!+– See **Ending 83** (1.Kc4 h5=).

Exercise

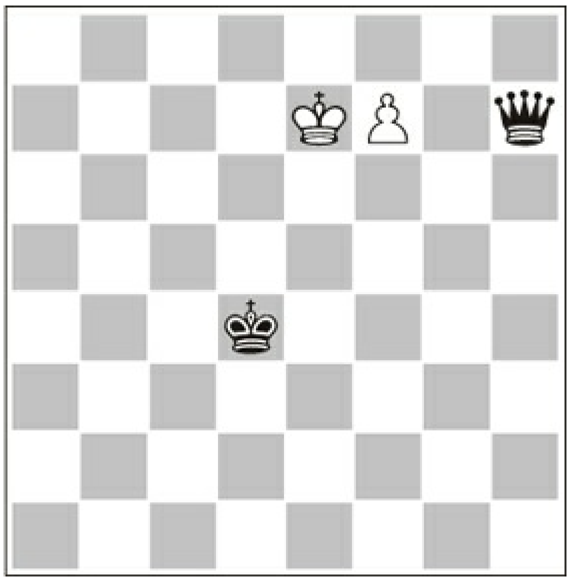


2.23 White to move. Suppose you have already spent 30 of your 50 moves to get here. It is time to be accurate. What would you do?

Solution

2.23 1.Nd7!. Also winning in less than 20 moves are the moves Bc2 and Kd5; but the text move is pure tactics. 1…Kc6 (1…Kb7 2.Bd3) 2.Bd3 (closing off the way out) 2…Kc7 3.Bb5! Kd8 4.Nf6 Kc7 5.Nd5+ (building the cage) 5…Kd8 6.Kd6 Kc8 7.Ke7 Kb7 8.Kd7 Kb8 9.Ba6 Ka7 10.Bc8 Kb8 11.Nb4 Ka7 12.Kc7 Ka8 13.Bb7+ Ka7 14.Nc6 mate. See **Ending 93**.

Exercise

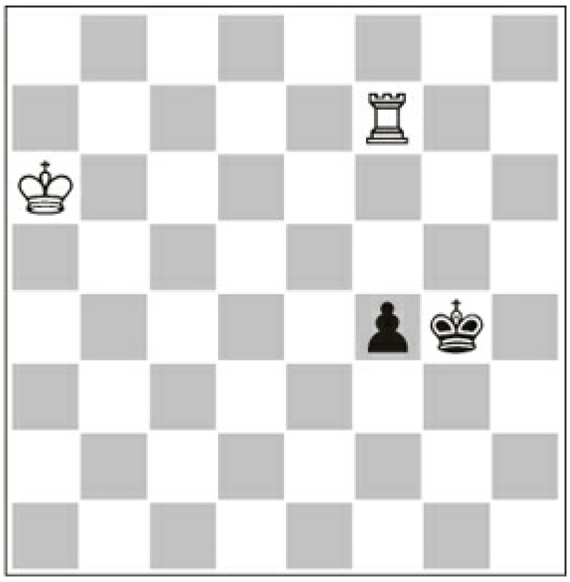


2.24 White to move.
Can he draw?

Solution

2.24 Yes, because the black king is out of the winning zone, but White needs to find an only and paradoxical move. 1.Kf6!= (1.Ke8? Kd5 2.f8Q Ke6–+; 1.Ke6? Qg7 2.Ke7 Ke5–+).

Exercise



2.25 Black to move.
Can he draw?

Solution

2.25 Yes, Black draws if he knows the ‘shoulder-charging’ idea. (**Ending 24**) 1…Kf3!! (1…f3? loses: 2.Kb5 Kg3 3.Kc4 f2 4.Kd3 Kg2 5.Ke2 and White arrives in time; we will see this rule in **Ending 21**) 2.Kb5 Ke3 3.Kc4 f3 4.Re7+ Kd2!=.

Exercise



2.26 Black to move.
Would you trade queens on c5 to win?

Solution

2.26 No. White can keep the opposition. 1…Qc5+?? (1…Qc4+ wins) 2.Qxc5+ Kxc5 3.Kd2 Kd6 4.Ke3! Ke5 5.Kd2! (keeping the opposition is more important than taking a pawn). 5…Kd6 6.Ke3 Kxd5 7.Kxd3= Suba-Huerga, Benidorm 2007.

3. Knight vs. Pawn

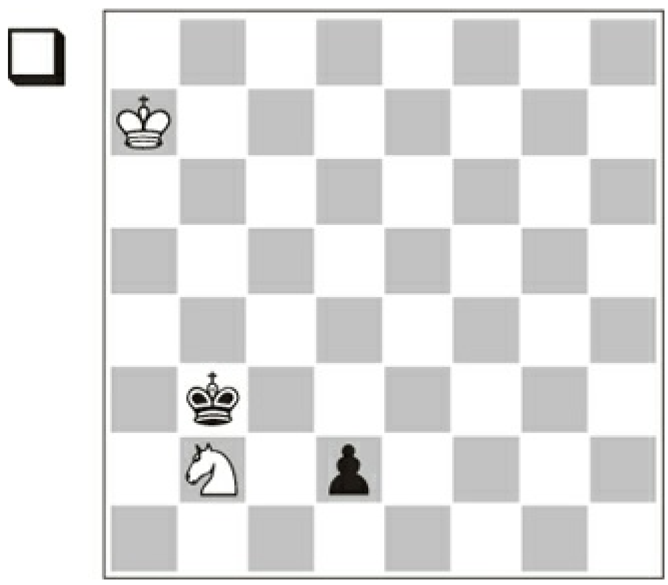
Let us start with something relatively easy. Once the most basic endings are mastered, our next goal must be to handle without hesitation any ending where a single piece struggles with a pawn. Among this group, Bishop endings are trivial: we just have to check whether the bishop can control any square in the pawn's path. On the contrary, Rook endings are the most complex ones. Knight and Queen endings are in the middle of the scale.

Let us start with the knight. We can say that this is the easiest section in the book. However, it is as important as all the rest. Learning to handle with accuracy certain key positions where a knight fights against a pawn may be profitable in two ways:

1. We will quickly calculate simplifying sequences from a more complex ending.
2. We will accurately 'glimpse' more complex positions where the same struggle between a knight and a passed pawn occurs, although there is more material on the board.

An extra benefit will be that our confidence (that is, the opposite state to insecurity) will grow, which will help us prevent many mistakes.

ENDING 10	Knight vs. 7th-rank pawn



Position 3.1

1.Nd1

The only move. As we will see, it is also a good one. Controlling the pawn is easier once the knight stands in front of it. Now the knight can manoeuvre at both sides of the pawn. It is easy to see that Black cannot create trouble anymore.

1...Kc2 2.Nf2!

The easiest way: the knight moves away from the enemy king, thus avoiding trouble. 2.Ne3+ would also be a draw. As 2...Kc3 fails to 3.Ne4+, the black king has no way to approach the white knight. It is a clear draw.

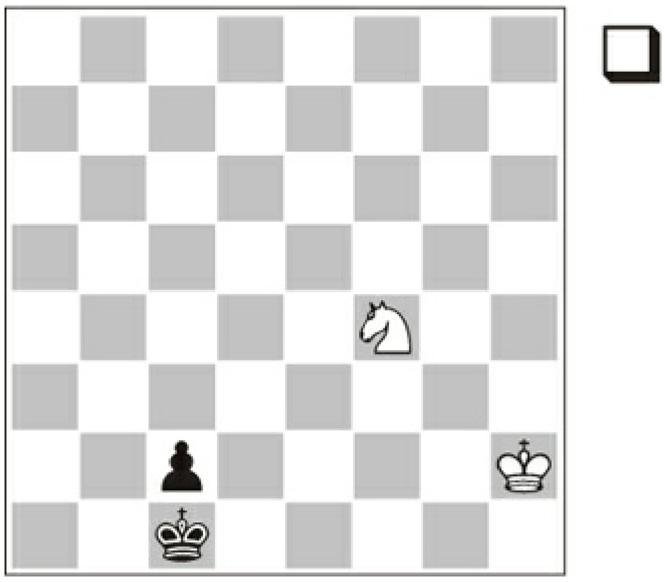
It is easy to see that if we place the pawn some steps back or on the adjacent files, the result and the manoeuvres are the same.

So far we can conclude that, if the knight manages to stand in front of the pawn, the position is drawn against any pawn on the 4 central files, even if the pawn has reached the 7th rank.

Later on we will extend and clarify this rule.

Lateral control

A question must immediately arise: What if the knight cannot get in front of the pawn, but can control the promotion square?



Position 3.2

As shown by analysis, if we can choose we must control the pawn from the rank, or, to provide a graphic idea, to control the pawn **from the side** rather than **from the rear**.

In the diagram position, the knight must be transferred to the second rank, so that it can enter two circuits: one to stop the pawn and the other to capture the pawn. In this case, e2-c3-a2 or e2-d4-b3-c1.

1.Ne2+!

The right move. As we said, the knight is transferred **to a side** of the pawn. The alternative was losing: 1.Nd3+?? Kd2! and the knight is driven off the right circuit, after which the pawn promotes. The last try is 2.Nc5!?, a typical calculation mistake in this ending. We may have thought that this move is enough to draw, but this is an illusion. 2...Kc3!. Avoiding the trick, threatening to promote the pawn and controlling both 'good' squares for the knight (d3 and b3). 3.Ne4+ Kd3. Any legal move would win now, but this is the shortest way to put an end to the knight's kicking. 4.Nc5+ Kc4 and the pawn promotes.

1...Kd2

This allows a draw straight away, but in case of 1...Kd1, the knight could get to its ideal square to control the pawn from the other side (here, the a2-square): 2.Nc3+! Kd2 3.Na2=; other king moves pose no problems for White.

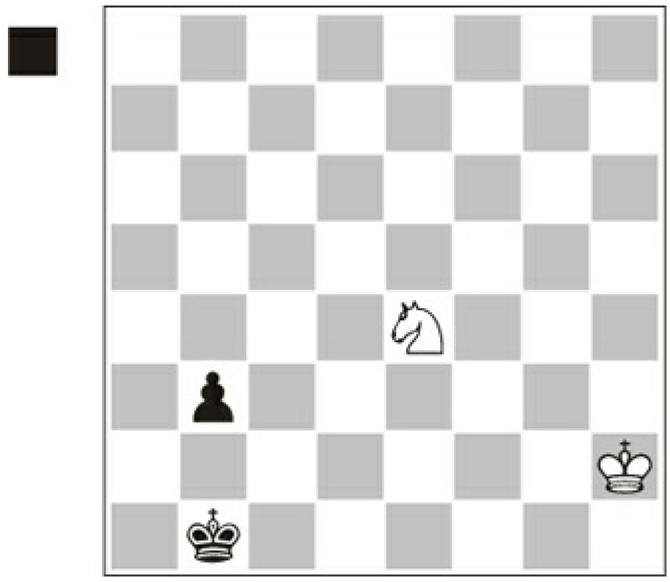
2.Nd4! c1Q 3.Nb3+=

Conclusion: Against a 7th-rank pawn on any of the 4 central files:

1. **If the knight can stand in front of the pawn, it is a draw.**
2. **If not, the knight must at least 'laterally' control the promotion square to draw.**
3. **If the knight can neither stand in front of the pawn nor 'laterally' control the promotion square from the same rank on which the pawn stands, the pawn promotes.**

ENDING 11 — The knight's pawn

As the reader has probably noticed, so far we have only dealt with pawns on the 4 central files. The reason is that there are some exceptions when dealing with the other pawns. This is due to the proximity to the corners of the board, which limit the knight's freedom of movement on both sides of the pawn.



Position 3.3

1...b2!

A superb move, very easy to find if we know that, when facing a 7th-rank knight's pawn, the knight cannot succeed unless it stands in front of the pawn.

The idea of 1…Kc2? is very logical: to prevent the knight from coming close to the pawn. However, this is an instructive mistake which is worth analysing: what if the knight moves in front of the pawn? 2.Nd6!. An important tactical subtlety, hindering the immediate advance of the pawn. The knight moves temporarily away from the pawn: this is a common device in this kind of struggle. 2…Kc3 (2…b2 3.Nc4=; 2…Kd3 3.Nb5 followed by Na3 – draw) 3.Ne4+ Kd4 (in the event of 3…Kd3, White gives up his knight for the pawn straight away; 3…Kc2 is just a repetition). 4.Nd2 b2 5.Nb1. Now the knight is in front of the pawn and we will see that it is a draw, despite the fact that its mobility is reduced compared to previous endings against central pawns. 5…Kd3 6.Kg2 Kc2 7.Na3+ Kb3 8.Nb1=. The blockade cannot be lifted.

2.Nd2+

2.Nc3+ loses in the same fashion as against central pawns: 2…Kc2 3.Nb5 Kb3 4.Nd4+ Kc3 5.Nb5+ Kb4–+.

2...Kc1!

This is the point! Against a knight's pawn, there is no 'good square' on the other side of the pawn.

3.Nb3+ Kd1 and the pawn promotes.

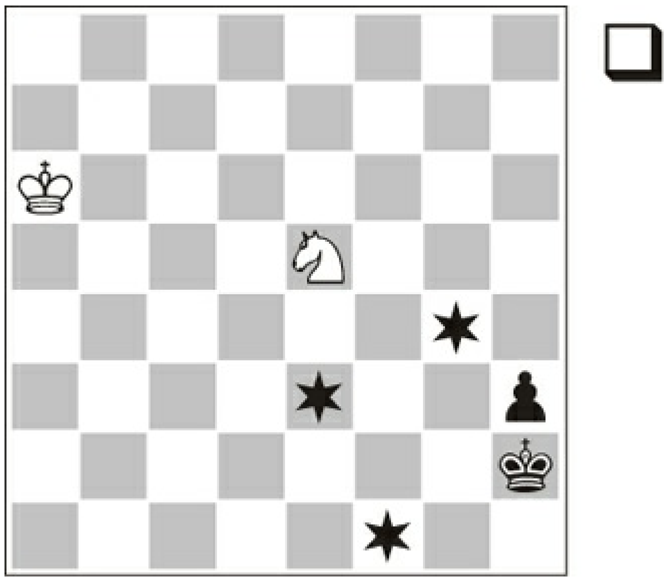
Conclusion: Against a 7th-rank knight's pawn:

1. **If the knight can stand in front of the pawn, it is a draw.**
2. **If not, the pawn promotes.**

ENDING 12 — The 6th-rank rook's pawn

As usual, the theoretical approach is different when dealing with a rook's pawn. The rook's pawn is the most dangerous scenario for a knight. This is because the edge of the board is closer, and so the mobility problems for the knight increase. Let us start with the 6th-rank rook's pawn. Here the drawing chances are similar to those seen against a 7th-rank central pawn.

There are no problems for the knight if it can stand in front of the pawn; however, if the knight fails and just controls the square in the pawn's path, it must find the right circuit in order to save the game. Here the circuit is g4-e3-f1-h2.



Position 3.4

1.Ng4+!

The knight enters the right circuit.

1.Nc4 draws as well, thanks to a small tactical device. It is worth noting it due to its paradoxical nature: in the starting position, White draws with the knight on e5, far from the pawn, but not with the knight on h4, close to the pawn. A series of checks helps the knight cross the board at great speed, but to do so the knight needs to find the right circuit: that is impossible starting from h4. 1…Kg2 (1…Kg1 2.Ne5!. The point! Now the pawn cannot advance and the knight reaches g4: 2…Kf1 3.Ng4!=; 1…Kg3 2.Ne3=) 2.Ne3+=.

The obvious **1.Nf3+?** fails. Here the knight enters a bad circuit and eventually is expelled. 1…Kg2 2.Nh4+ (2.Ne1+ Kg3–+) 2…Kf2–+ and the pawn promotes.

1...Kg3 2.Ne3 Kf3 3.Nf1 Kf2 4.Nh2

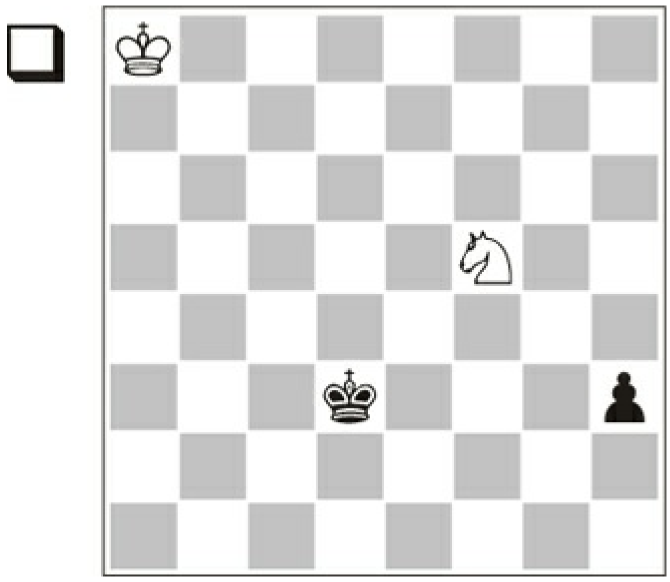
The knight remains inside the right circuit, that is, h2-f1-e3-g4 and the black king cannot drive it away. Draw.

Conclusion: The knight draws against a 6th-rank rook's pawn if it can stand in front of it. If the knight just controls the pawn's path, it needs to enter the right circuit to draw, that is, for the h1-corner, g4-e3-f1. From the f3-square, the knight fails.

ENDING 13	The 7th-rank rook's pawn

The barrier

Now only the struggle between a knight and a 7th-rank rook's pawn remains to be studied. Here the king can always drive the knight away, or capture it. There are more drawing chances than we may think at first sight, and they depend on the knight getting help from the king.



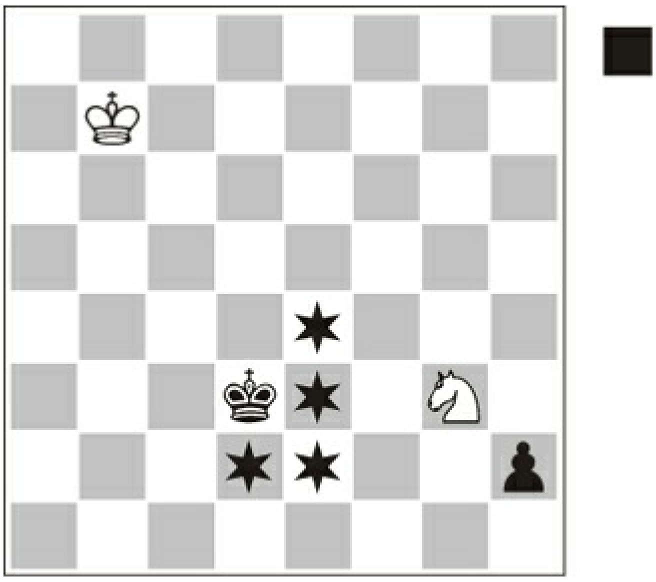
Position 3.5

The black pawn is about to reach the 7th rank, while the white king is very far away. It looks like a critical situation for White… but it is a draw!

1.Ng3! h2

1…Ke3 2.Nf1+, and the knight makes it to h2.

2.Kb7



Position 3.6
(analysis diagram)

The black king seems very close to the pawn, but things are not that easy when he tries to come closer. The knight has set up a barrier (the marked squares). To cross the barrier, the black king must give up the pawn. To go round it, there are two possible routes: d4-e5-f4 or c2-d1-e1-f2. Both allow the white king to come closer. It is interesting to note that the essential (and solid) part of the barrier are the d2-e2-e3-e4-squares, which form an L-shape.

2…Kd4

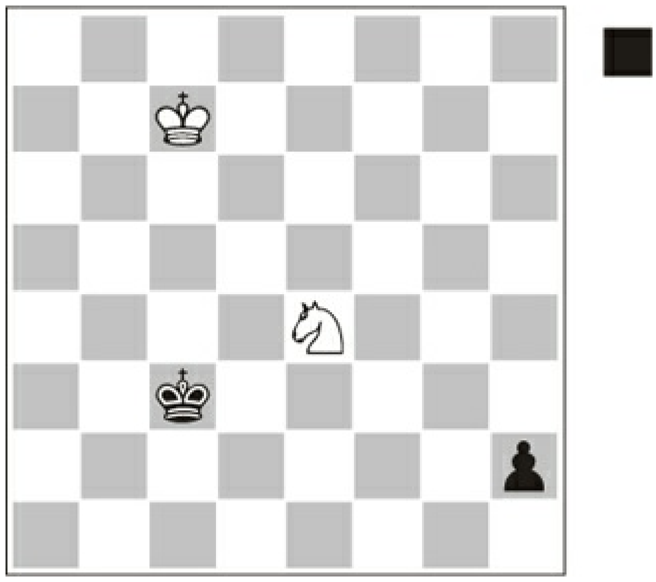
The alternative way is also very long. 2…Kc2 3.Kc6 Kd1 4.Kd5 Ke1 5.Ke4 Kf2 6.Kf4=.

3.Kc6 Ke5 4.Kc5 (4.Nh1 Ke4 5.Kc5=) **4…Kf4 5.Nh1 Kf3 6.Kd4 Kg2 7.Ke3!**

Just in time! The white king can occupy the f2-square.

7…Kxh1 8.Kf2=

The other barrier



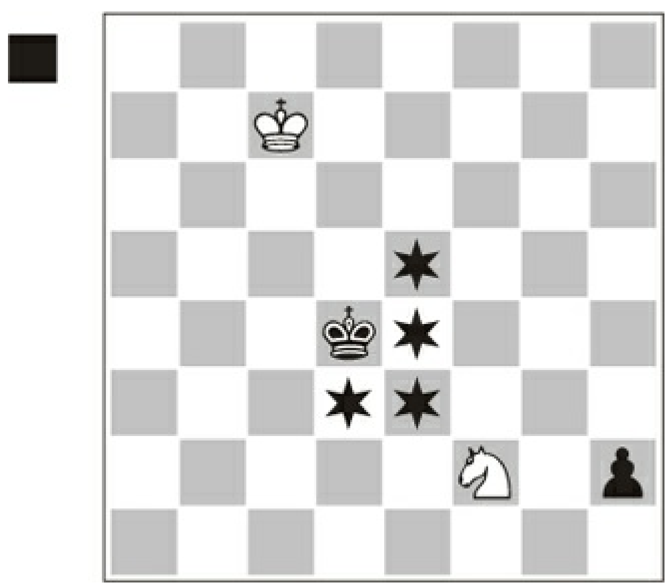
Position 3.7

This position belongs to the final part of one of Grigoriev's studies, but can easily arise in a game. Starting from the e4-square the knight can stop the pawn, and set up barriers from the f2-square as well as from the g3-square. Depending on the position of the enemy king, the knight will choose the most suitable location.

1...Kc2

The king anticipates the barrier and gets ready to go round it, but here that is not enough, because the white king will be able to defend the knight from the f4-square.

1…Kd3?! 2.Ng3!= (and here is the barrier position we have just seen) 2…Kc2 3.Kd6 Kd1 4.Ke5 Ke1 5.Kf4=. **1…Kd4?!** 2.Nf2!.



Position 3.8
(analysis diagram)

Here appears a different barrier, the most troublesome for Black given his king's position. Once again, the core of the barrier is L-shaped (the e5-, e4-, e3- and d3-squares). (2.Ng3? loses to 2… Ke5! 3.Kc6 Kf4 4.Nh1 Kf3–+ 5.Kd5 Kg2 6.Ke4 and the white king will not get to the f2-square) 2…Kc3 (the king starts going round the barrier) 3.Kd6 Kd2 4.Ke5 Ke2 5.Nh1 Kf3 6.Kd4 Kg2 7.Ke3 Kxh1 8.Kf2=.

2.Ng3! (2.Nf2? Kd2–+) **2...Kd1 3.Kd6 Ke1 4.Ke5 Kf2 5.Kf4=**

Conclusion: The knight alone cannot stop a 7th-rank rook's pawn. However, its ability to set up a barrier can be enough to hold out while waiting for the king's aid, assuming the white king is close enough.

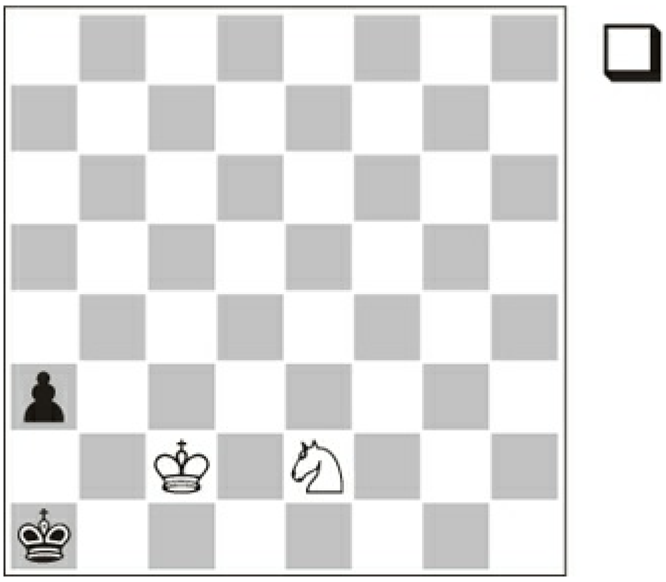
Exceptional positions

There are at least two settings that any player should know. One favours the knight; the other favours the pawn.

ENDING 14 King + Knight checkmate

There is a very exceptional situation, where the knight, with the king's aid, can eventually checkmate the enemy king. This happens when the enemy king is stuck in front of a 6th- (or 7th-)rank rook's pawn. The sequence is always quick, and requires some accuracy due to the stalemate chances. The knowledge of this ending mainly helps us not to fall into this position due to a blind desire for victory.

I have never seen this position in an actual game, and it is not likely to arise, unless the side with the pawn blunders. Spanish IM Sergio Estremera told me that he had this position in one blitz game on ICC (Internet Chess Club), but then his opponent just left his flag to fall; those familiar with ICC blitz rules know the result of the game.



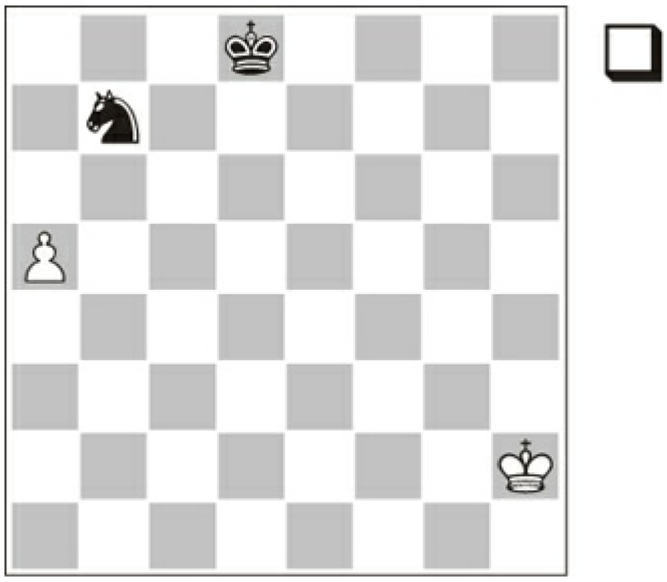
Position 3.9

1.Nc1! a2 (only legal move) **2.Nb3 mate**

The winning sequence can be more complicated, for example, if the knight occupies another square; however, if this happens, and we are familiar with the ending, it is always easy to find the correct winning path.

ENDING 15 The knight's dumb square

The second square on the long diagonal (here the b7-square; it could be g7, b2 or g2) can be named the knight's dumb square. Here the knight's mobility is very poor, despite it not being on the edge of the board. As we saw in **Ending 9**, this is usually a losing position against a rook, and here the knight is powerless against a threatening pawn.



Position 3.10

In this extreme case, the knight occupies the worst square we could find. Not only does the knight not stop the pawn, but it also prevents the black king from doing so.

1.a6 Kc8 2.a7+–

4. Queen vs. Pawn

The content of this chapter is rather easy. If you study these examples thoroughly, you will be able to calculate quickly a simplifying sequence from a more complicated position, and to apply these ideas to positions with more pawns. Most players think they have mastered these endings. However, very often this is not the case. Instead, they know some basic ideas but ignore very important details.

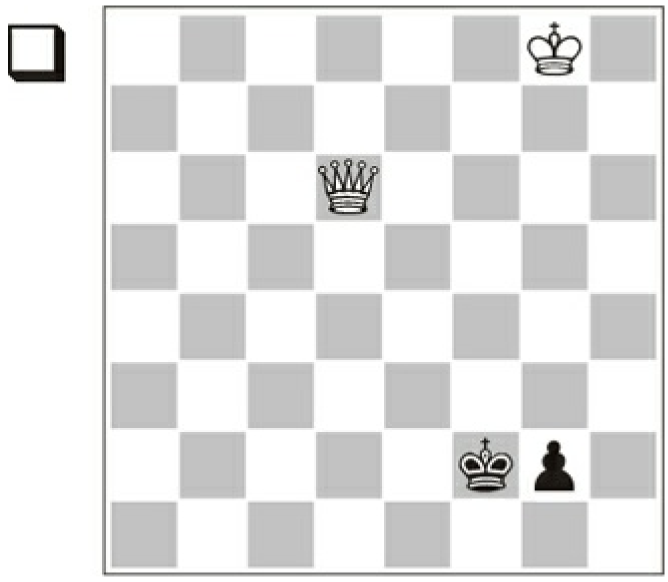
I have seen strong club players or even grandmasters lose lots of half points in the endings we will see right now.

No problems when solving Exercises 3, 14 and 24 in the test? Then perhaps you have mastered the content of this chapter. If you had problems in the test, though, I am sure you can improve things.

The ending Queen vs. Pawn crops up quite often, usually as a result of a pawn race. It looks easy to calculate, but it is rich in subtleties. Fortunately, you can easily fix these subtleties in your mind, as they are really striking.

ENDING 16	Queen vs. 7th-rank pawn

The winning procedure



Position 4.1

White's task is quite easy. For the time being, the queen must check the enemy king to prevent promotion.

1.Qf4+ The queen approaches the pawn. 1...Ke2 2.Qg3!

This move is necessary. Repeating checks does not help progress, as the black king just hangs around e2 and f2.

2...Kf1 3.Qf3+

The point! Now the black king must go in front of the pawn.

3...Kg1 4.Kg7 The white king approaches the pawn. **4...Kh2 5.Qf2** The same as before, to bring the king a bit closer. **5...Kh1 6.Qh4+ Kg1 7.Kg6 Kf1 8.Qf4+ Ke2 9.Qg3!** The same again. **9...Kf1 10.Qf3+ Kg1 11.Kg5 Kh2**

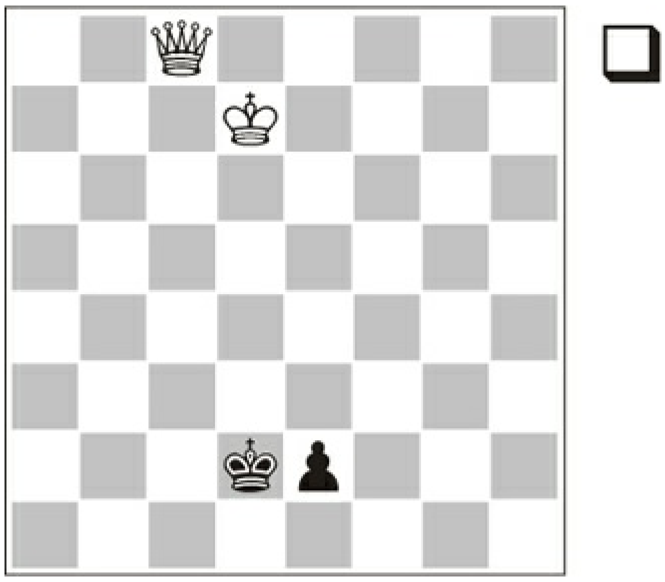
Once the king has arrived, it is easy to find a mating pattern. Here the proximity to the edge of the board helps.

12.Kh4! g1Q 13.Qh3 mate

As we have seen, in a normal position the queen wins against a 7th-rank pawn (even more so when the pawn is on 6th rank or even further back). However, in the next examples we will see that there are exceptions due to these two factors:

A. Stalemate themes.
B. The queen is hindered by her own king.

When the strong king is an obstacle



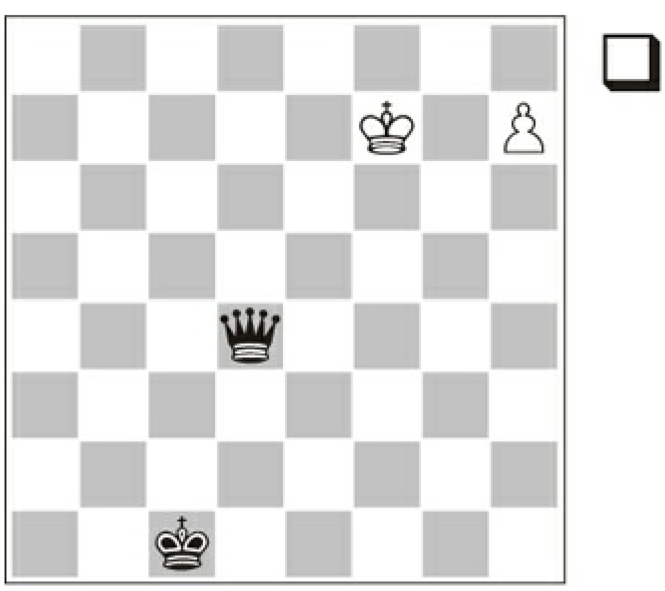
Position 4.2

We have here our first exception. Sometimes it is the king who hinders his queen. Even if White is to move, he cannot win as there is not a single check available for the queen. This is a typical scenario after a pawn race.

Conclusion: The queen wins against an ordinary pawn (on b-, d-, e- or g-files) on the 7th rank, as long as she can check the enemy king.

ENDING 17	Queen vs. 7th-rank rook's pawn

Stalemate themes



Position 4.3

Let us see the second exception: with a rook's or a bishop's pawn, there are stalemate themes on the board. Let us start with the rook's pawn. The queen has checks, but forcing the king in front of his pawn is useless, since then he will be stalemated and there will not be time to bring the black

king closer.

1.Kg8 Qd8+ 2.Kg7 Qg5+ 3.Kf7 Qh6 4.Kg8 Qg6+ 5.Kh8!

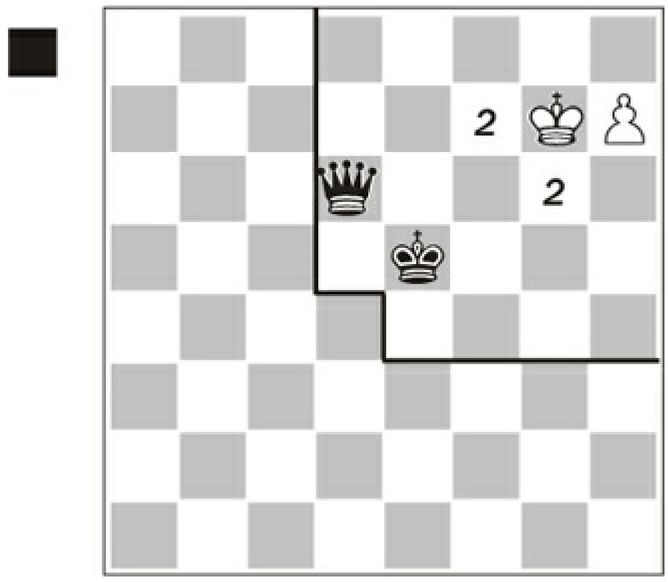
The point. The black queen must move to lift the stalemate and then the white king will come out of the h8-square, thus threatening with promotion again.

5...Kd2 stalemate.

Now we will see the exception to the exception. As seen in **Ending 16**, the queen alone is not enough to win. She needs her king to set up a mating net. Therefore, the king must be near. But how near?

The strong king is near

Many books will show you the line that divides the board into a winning zone and a drawing zone, but will you remember it? My experience says 'no'. Forget about awful irregular geometrical figures and try to understand the core of this ending, by analysing the two lines we see in this example. Then, we will draw our conclusion.



Position 4.4

We have chosen this position because the black king occupies a square that allows Black to win with any of the two following standard procedures:

1...Qd7+ 2.Kg6 Qe6+ 3.Kg7 Qe7+

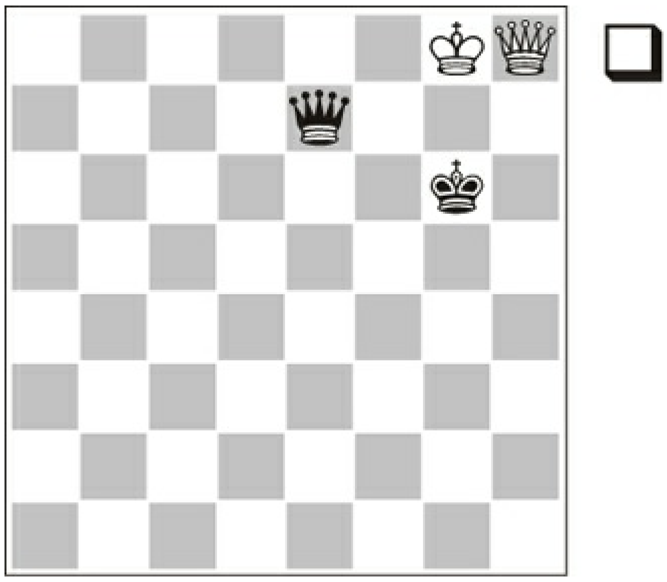
Setting up one of the winning manoeuvres. This is the alternative way, and you should study it as well, since if the king were on another square (say d6) it would be the only way: 3...Qf6+ 4.Kg8 Ke6!–+. The king stands a step away from the key square f7. To avoid being checkmated on the next move, White must promote to a knight. We see in this variation that the f7-square is the key to checkmate White.

4.Kg8 (4.Kg6 Qf8–+) **4...Kf6!**

In this line the king approaches the second key square, g6, which he must occupy immediately after White promotes.

5.h8Q+ Kg6–+

An important position to know.



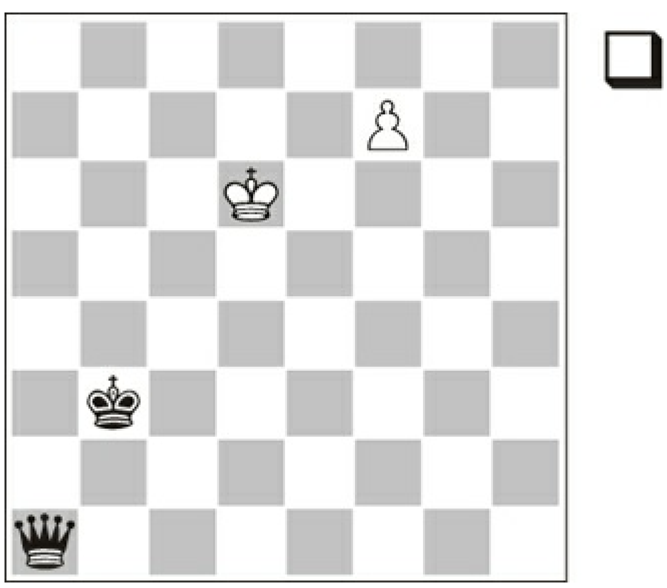
Position 4.5
(analysis diagram)

Despite having a brand new queen and the move, White cannot avoid being checkmated because his royal couple is poorly placed.

Conclusion: In order to win against a 7th-rank rook's pawn, the strong king must be just two steps away from any of the two key squares: (here f7 or g6).

ENDING 18 Queen vs. 7th-rank bishop's pawn

With a bishop's pawn, stalemate resources also occur, but the scenario is a bit more complex, since the king can be placed at both sides of his pawn, and drawing chances differ then. In this first example, we are going to see the main defensive resources when the enemy king is far away.



Position 4.6

1.Ke7!
The king secures promotion. It is worth noting that promoting straight away is not always a good idea: 1.f8Q?? Qa3+–+.
1...Qe5+
The queen starts approaching the pawn in the fashion we know.
2.Kd7 Qf6 3.Ke8 Qe6+ 4.Kf8
This allows the black king to come a step nearer.
4...Kc4 5.Kg7!
But now the white king has made it to the other side of the pawn, which, as we will see, is the

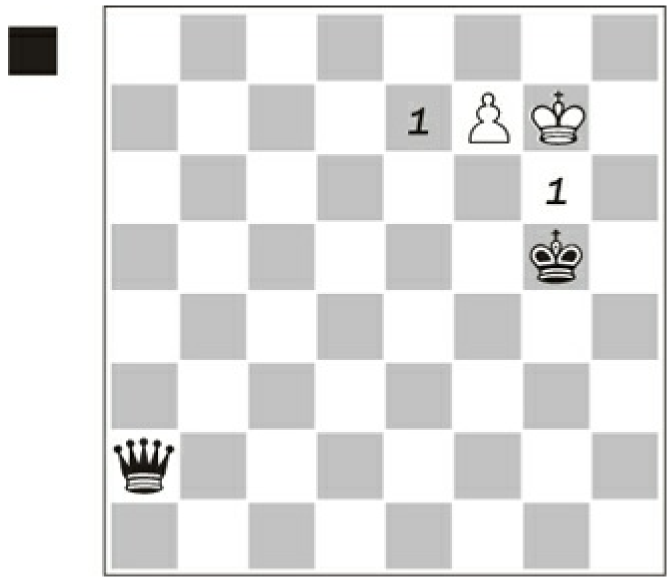
right one. White cannot win tempi to bring his king nearer anymore.
5...Qe7 6.Kg8 Qg5+ 7.Kh8 Qf6+ 8.Kg8 Qg6+ 9.Kh8!
The point: White threatens to promote and **9...Qxf7** is a stalemate.

Conclusion: Just like in the positions against the rook's pawn, the queen needs her king's aid to win against a 7th-rank bishop's pawn.

Here we can note some interesting generalisations with no need to add new diagrams:
First, if the queen is unable to check in the starting position, a rook's or a bishop's pawn could draw even on the 6th rank. However, in practice, on an empty board, this only applies to the bishop's pawn.
Second, and very important in practical play: since stalemate is the only drawing resource, there are no chances whatsoever when the defender has another pawn.

The winning zone for the king. Defending king on the right side

The question is the same as in the rook's pawn example: how near must the king be? Now the answer depends on the defending king being on the right or the wrong side of the pawn. With the king on the right side, the winning zone is narrower than in the case of the rook's pawn. This is because it is not possible to win by means of a quiet king move after the pawn promotes.
Let us see the possible manoeuvres and try to extract a rule.

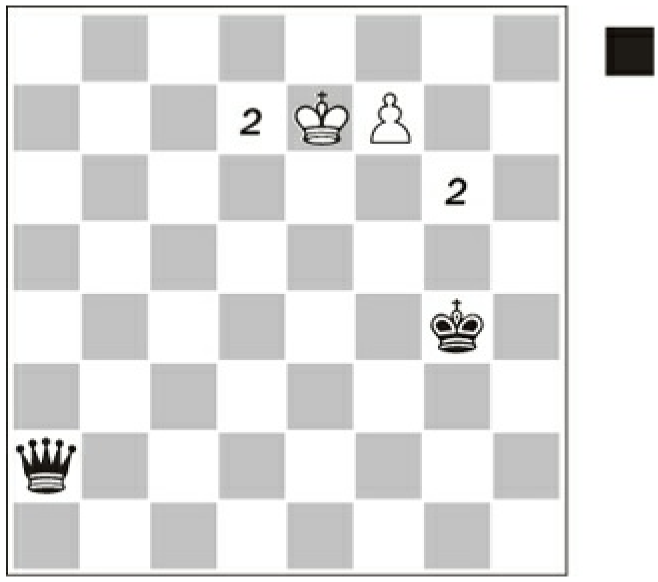


Position 4.7

1...Qa7! 2.Kh8 (2.Kg8 is the same) **2...Kg6 3.f8Q**
Now the black queen checkmates, but it has to be on this move, because the white queen is not restricted by the edge of the board anymore. Therefore, the stronger side's king has just one move to reach the key square g6.
There is another winning position, when the stronger side's king can hinder promotion with just one move (that is, from the e7-square).
3...Qh7 mate

Conclusion: In order to win against a 7th-rank bishop's pawn, when the defending king is on the 'right side' (near the corner), the stronger side's king must be one step away from one of the two key squares, g6 or e7.

King on the wrong side



Position 4.8

Against a 7th-rank bishop's pawn, when the defending king is on the wrong side of the pawn, the winning zone is much larger, even larger than it was against a rook's pawn. As we will see, there are two mating patterns. One involves the king defending the queen from the d7-square and the other involves forcing the defending king to the other side and reaching the position we have already seen with the strong king on g6. Here is the winning procedure bringing the king to g6.

The first phase is easy to understand: we must force the enemy king to the other side.

1...Qa7+ 2.Ke8 Qb8+ 3.Ke7 Qe5+ 4.Kd7 Qf6 5.Ke8 Qe6+ 6.Kf8 Kg5!

Black has gained a tempo and the king uses it to make it to g6.

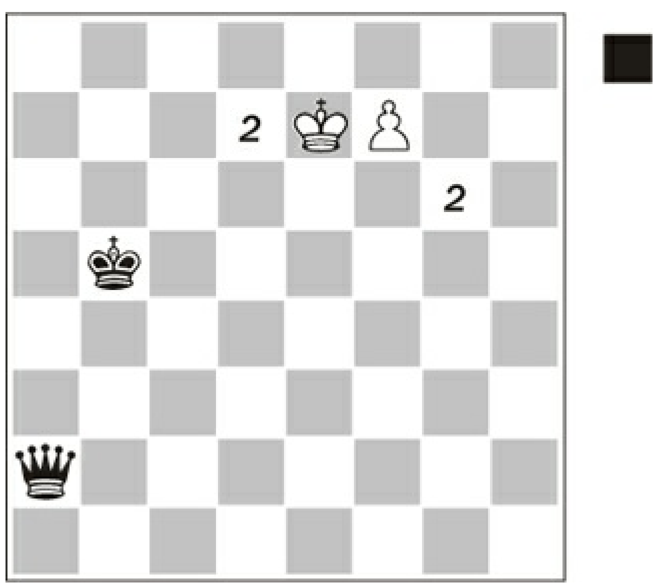
7.Kg7 Qe7!

7...Qd7?! 8.Kh8!? and Black must try again, since his king cannot move further now.

8.Kg8 Kg6–+ and after promotion comes checkmate.

Let us see what happens if the stronger side's king is on the other side of the board.

Checkmate on d7



Position 4.9

When the king is inside the winning zone, but two steps away from d7, we must play carefully to prevent the enemy king from reaching the right side without losing tempi.

1...Qa3+!

Actually other checks are also winning, but then accuracy is needed on the next move. For instance: 1...Qa7+ 2.Kf8 (2.Kf6 Qd4+!) and now only 2...Qg1 works.

2.Ke8

2.Kf6 Qf8–+ is just too easy.

2...Qa8+ 3.Ke7 Qe4+! 4.Kf8

Trying to make it to the other side. 4.Kf6 Qd4+ 5.Ke7 Qg7 6.Ke8 Kc6–+.

4...Qh7!

Though the enemy king is in front of the pawn, we must not hurry to bring our king closer. Now

our goal is to hinder the enemy king's route to the 'right side'. 4...Kc6? 5.Kg7 and it is easy to see that, since the black king is more than one step away from e7 or g6, the position is drawn.

5.Ke8

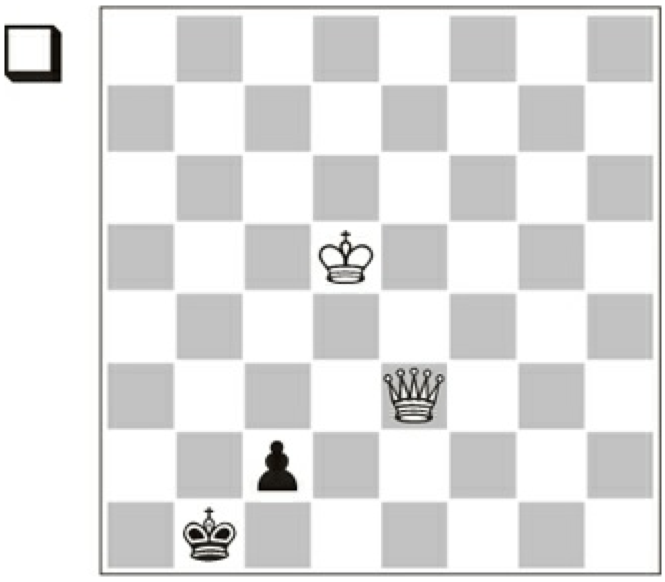
The white king is on the fatal square and the black queen can reach d7 in one move; therefore, it is time to bring the king closer.

5...Kc6! 6.f8Q Qd7 mate

Conclusion: When fighting against a 7th-rank bishop's pawn with the defending king on the wrong side of the pawn, the queen wins if her king is just two steps away from one of the two key squares (here, d7 and g6).

ENDING 19 — A too-frequent trick

This chapter could end here, since all essential circumstances about the struggle between a queen and a pawn have been considered and there are no more exceptions. However, I have seen too many players falling for this trick, so here come two more positions.



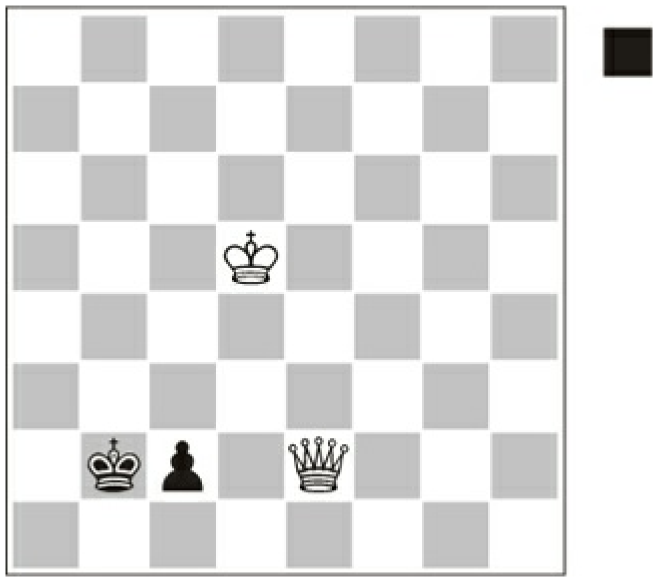
Position 4.10

We have here a 7th-rank bishop's pawn, and the white king is outside the winning zone (though close to it). Therefore, it is a draw, but there are a couple of tricks worth knowing. If the white player is an expert, he will very likely try to take us to the critical position after going round and round.

1.Qb3+ Ka1! 2.Qe3 Kb1 3.Qe4 Kb2

The black king must be confused: let's try the trick!

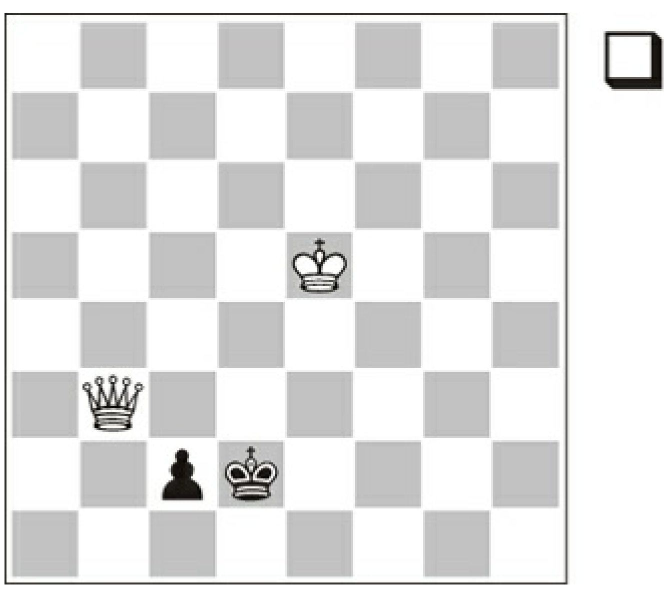
4.Qe2



Position 4.11
(analysis diagram)

4...Ka1!
The principled move. **4...Kb1??** is a typical mistake here that allows the main trick: 5.Kc4!! c1Q+ 6.Kb3+– and, even though the black queen has more space on c1 than on a1, nevertheless she cannot stop checkmate.
4...Kc3?? does not work either, since after 5.Qe5+! the king is forced to the wrong side and his white counterpart is automatically inside the 'new' winning zone.
5.Kc4 c1Q+ 6.Kb3 Qb1+ Only move, but enough to draw.

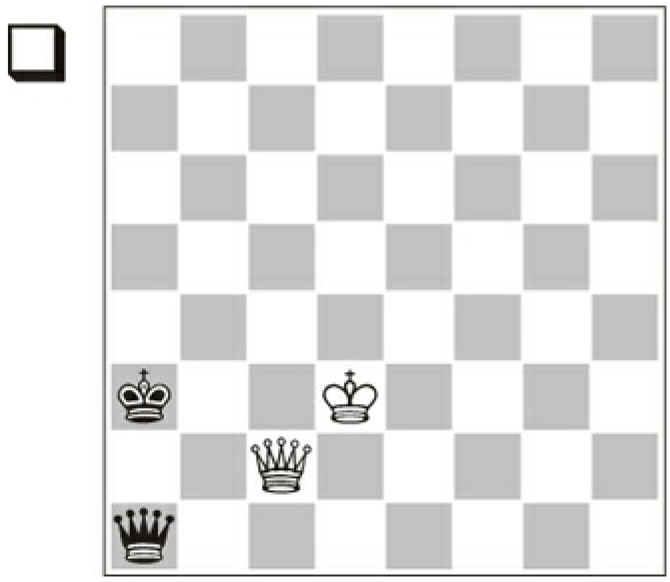
The same trick, on the other side



Position 4.12

You can try the same trick on the other side of the pawn. In practical play, winning chances are even higher, because the defence is more difficult. The white king is outside the winning zone, so it is a draw.
1.Qb2 (first phase: confuse the opponent, as we know) **1...Kd1 2.Qb3 Kd2 3.Qa2!?** (time to set the trap) **3...Kc3!**
Very awkward... and only move! Difficult to find if you don't know the position well.
3...Kd1?? The natural move, but at the same time a mistake that leads to a familiar end. 4.Kd4! c1Q 5.Kd3+–; **3...Kd3??** is not enough due to 4.Qb2 and Black will have to allow a pin to avoid 5.Qc1: 4...Kd2 and the white king seizes the opportunity to enter the winning zone: 5.Ke4+–.
4.Qa1+ Kd2=

ENDING 20	Queen vs. Queen



Position 4.13

Strictly speaking, this is not a struggle between a queen and a pawn, but actually it is a very useful position that we should study in this chapter, since it usually occurs as a result of a pawn race.

The first thing to note is that, although both players have promoted, it does not mean the game is a draw. Losing chances do exist, especially if we have promoted in the corner of the board. Then, when the queen is still on the edge, it may be obstructed by her king, and captured. Another possibility is a mating net. In these cases the analysis is rather simple. We have already seen examples in this chapter.

More possibilities arise when the stronger side's king is fairly close, specifically on the spot shown in the diagram (for this corner, the d3- or c4-squares; the f4- or e3-squares if promotion occurred on h1).

This example is worth a thorough study; it can be taken as the standard pattern for similar positions.

1.Qc5+! Ka2

The most stubborn answer. **1…Ka4?!** 2.Qa7++–; **1…Kb3** 2.Qb5+ Ka3 3.Qa5+ Kb2 4.Qb4+ also leads to the main line; **1…Kb2** 2.Qb4+ shortens the main line.

2.Qc4+!

After 2.Qa7+? Kb1= White cannot get back to the right path.

This variation is very important, as it shows us two things:

1. Not every starting position for the white queen works.
2. The defender must head for this relative position of king and queen if possible.

2...Ka3 (2…Kb2 3.Qb4+) **3.Qa6+ Kb2 4.Qb5+ Ka3** (4…Kc1 5.Qc4+ Kb2 6.Qb4+ – the same position again) **5.Qa5+ Kb2 6.Qb4+ Ka2** (6…Kc1 7.Qd2+ Kb1 8.Qc2 mate) **7.Kc2!** reaching a known winning position.

5. Rook vs. Pawn

This is one of the most important chapters in this book, and the most important in this section about a piece fighting against a single pawn. Experience shows that rook endings are the most common endings in practice, and also the most complex, and that is why the chapter on rook endings is the longest in the book. Besides, many rook endings end up in a Rook vs. Pawn(s) ending when one of the players is forced to give up the rook for a passed pawn.

On the other hand, this struggle is much more complex than Queen vs. Pawn or Knight vs. Pawn, because any complexities in those are restricted to positions where the pawn is on the 7th rank or, exceptionally, on the 6th. But in Rook vs. Pawn endings, the struggle can be complex regardless of which rank the pawn stands on.

An experienced player who knows the themes and has time on the clock can calculate every single line with accuracy; however, sometimes it is not that easy. In any case, if the player is not familiar with the subtleties hidden in this ending, the task is simply impossible.

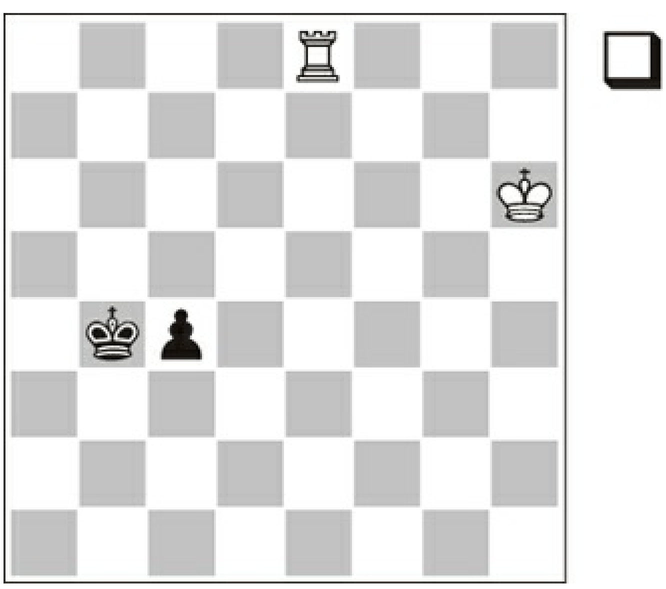
ENDING 21	Kings do not push. Just counting

In order to solve these endings, the first approximate method is counting tempi: for the attacker, the tempi needed for both rook and king to control the promotion square; for the defender, the tempi needed for the king to secure promotion and for the pawn to reach its goal.

Unfortunately, this simple technique only works when no special circumstances alter the calculation, and that hardly ever happens in this ending.

A typical scenario where simply counting works occurs when the kings stand at different sides of the pawn; nevertheless, great care is needed even in those cases.

In the diagram position the kings will not meet, rook checks do not win tempi and there are no more special circumstances. That is why a simple count works. White needs 5 tempi to control the promotion square with both king and rook, whereas Black needs 5 tempi to promote. The conclusion is clear: if White is to move, he wins; if Black is to move, he draws.



Position 5.1

1.Kg5!

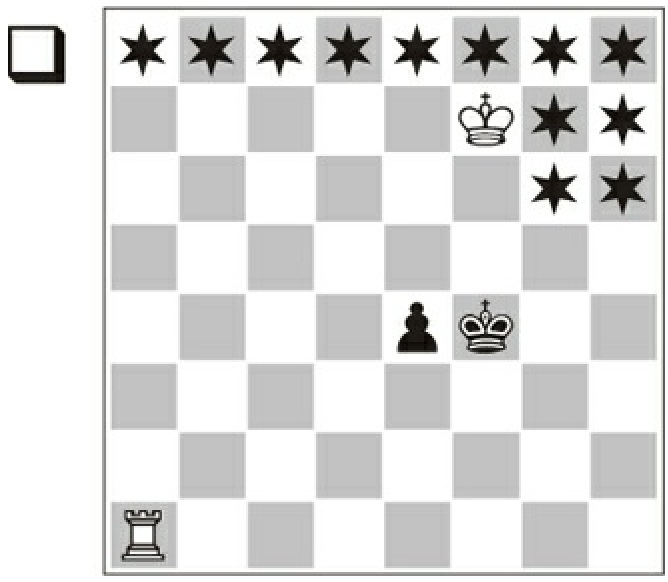
If he had the move, Black could draw by 1...c3 2.Kg5 c2 3.Rc8 Kb3 4.Kf4 Kb2=.

1...c3 2.Kf4 c2 3.Rc8 Kb3 4.Ke3 Kb2 5.Kd2 and White has arrived in time, as our simple counts had anticipated.

Everything looks easy but, even in this position, if White changes the move order and starts 1.Rc8?, Black can interfere with White's plan and draw thanks to a brilliant move: 1…Kc3! We will see the virtues of this move further on.

In practical play, things are hardly ever that easy. In the next examples we will discover the different resources both sides have at their disposal in order to 'interfere with the natural course of events'.

Kings push… a bit



Position 5.2

Euwe, 1934

This position is very easy to solve, on the basis of the same principles as the previous one. With this we can complete our view of the issue. Euwe studied these positions in the 1930s and stated that, in 5.2, White only draws when the king occupies one of the marked squares, and wins in any other case. For instance, in this diagram it takes the king 5 tempi to arrive on time to control promotion, whereas Black needs 4 to secure it. That means White arrives on time if he has the turn.

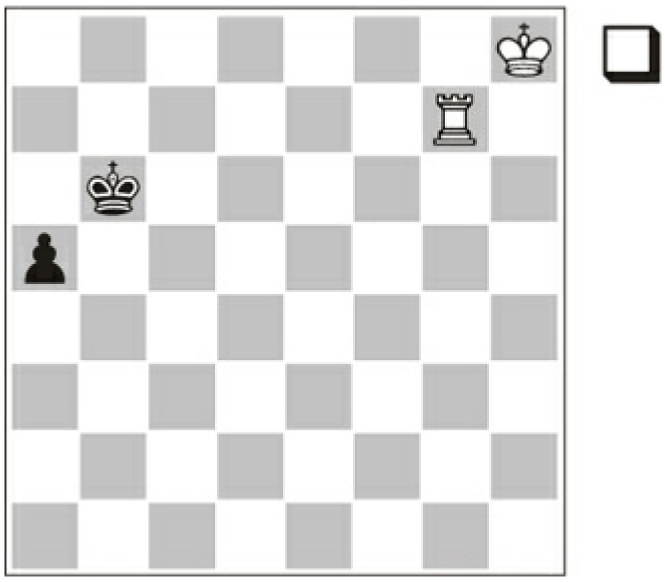
The study of this diagram makes us think that there is a large area where a simple count works. It can work even if the king is on the same file as the defender, unless his way is blocked, as here.

1.Ke6 e3 2.Kd5 e2 3.Kd4 Kf3 4.Kd3 Kf2 5.Kd2 1-0

ENDING 22	Defending king on the 3rd rank cut off along a rank

When the king and his pawn are still further from promotion (in general, whenever they have not crossed the middle line of the board), cutting off the king is a very important resource: if it works, the rest does not matter.

Cutting the king off is very useful when the defender's king is on the third rank, and it wins straight away when we are dealing with a rook's pawn or when the king and the pawn are separated (otherwise, the king can go round his pawn, although then he would lose a lot of time and probably the game as well).



Position 5.3

In the diagram position, both circumstances occur, so cutting the king off wins. Moreover, the white king is so far away that this is the only way to win.

1.Rg5!

It is plain to see that the white king cannot arrive in time: 1.Rg8? Kc5! (1…Kb5 also works; instead, 1…a4? 2.Rg5!) 2.Kg7 a4 3.Kf6 a3 4.Ke5 Kc4 5.Ke4 a2 6.Ra8 Kb3 7.Kd3 Kb2 and draw; we will come back to this position in **Ending 28.**

1...a4

The king cannot go further. The only alternative, pushing the pawn, is also useless.

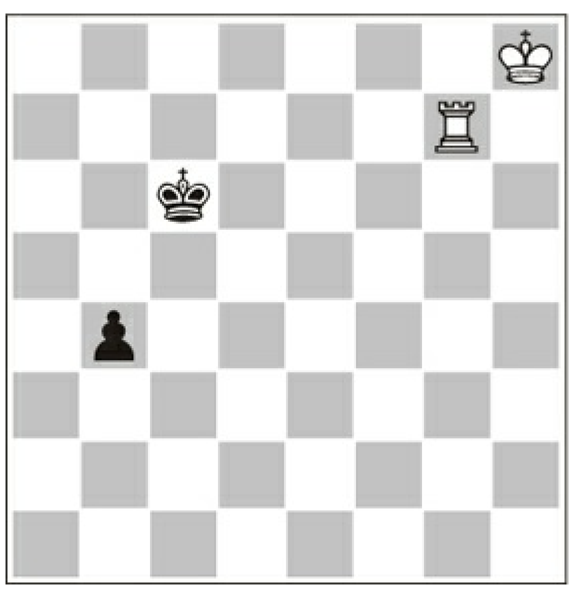
2.Kg7 a3 3.Rg3!

And the pawn dies. If we take a look at the manoeuvre, we can understand why cutting the king off one rank further brings nothing.

3...a2 4.Ra3+–

In order to fix these ideas in your mind, have a look at the following three positions and their statements. If you have doubts, do this **Exercise:** think about the statements until you are sure they are correct.

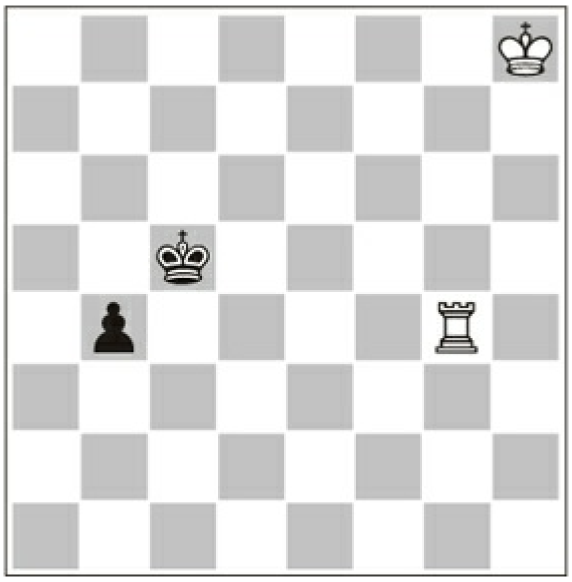
'Cutting the king off' series



Cutting off is decisive, Only 1.Rg5 wins



Cutting off is not decisive, but still only 1.Rg5 wins



Cutting off is useless, White cannot win even when it is his turn.

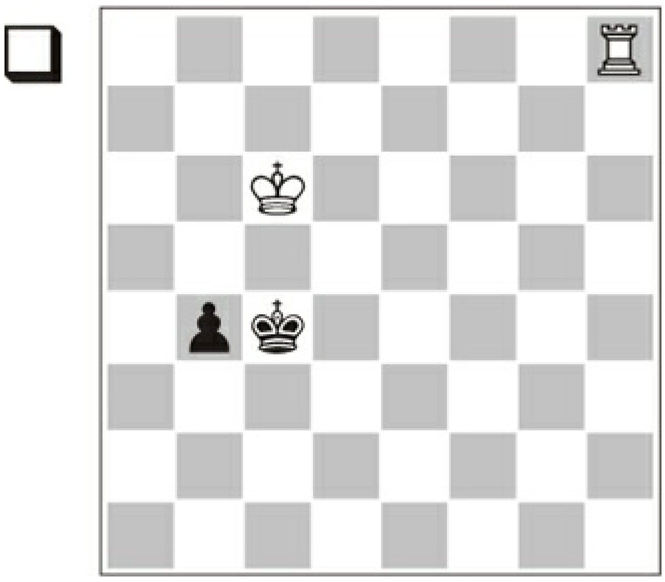
Once we have seen both scenarios (i.e. when the kings are not pushing against each other and when the rook wins on its own by means of cutting off), let us focus on the toughest and most frequent scenario: the struggle between the two kings.

ENDING 23	Strong king behind the pawn

Underpromotion to a knight

We are going to see a tough fight from which we can draw some important conclusions. The strong king pushes his counterpart from the rear, while the rook occupies its most frequent position: the side attack. Here the main defensive resource is **underpromoting to a knight,** whereas the main attacking motif is **going round**.

Let us start with Position 5.4, where White is to move. The white king is pushing the enemy king, who in turn blocks his way. There is no time for going round the pawn (a device we will see in the next example), so the only way to make progress seems to be a combination of rook checks and moving the king forward.



Position 5.4

1.Rh4+ Kc3 2.Kc5

With 2.Kb5 White can try to go round the pawn, but there is no time: 2…b3 3.Ka4 b2 and the white king lacks one tempo.

2...b3 3.Rh3+ Kc2 4.Kc4 b2 5.Rh2+ Kc1

The only move with a central pawn. In the case of a knight's pawn there is another resource, based on the stalemate motif.

The easier way to draw is 5…Kb1! 6.Kb3 Ka1! 7.Rxb2 stalemate. It is important to take this motif into account.

6.Kc3

The checkmate threat hinders promotion. In this position, many players think they win straight away, so Black's answer comes as a shock.

6...b1N+!

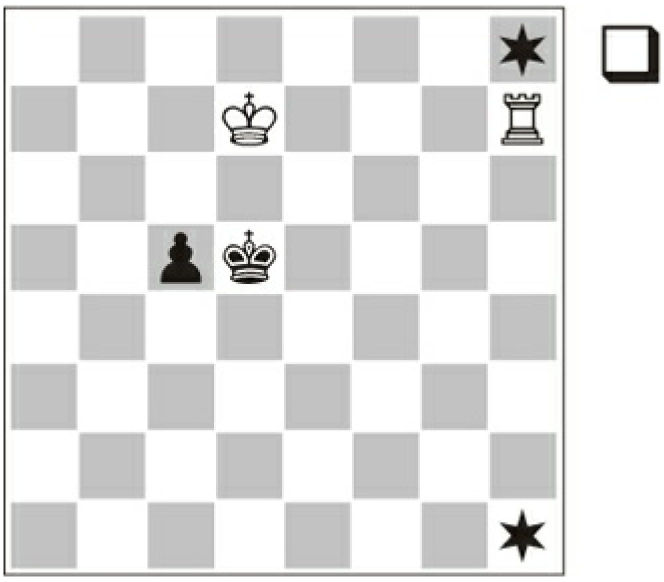
The only move, but enough to save the game. Now the easiest way to keep the knight safe is to keep it as close to the king as possible. This usually involves playing only moves. We have already seen this scenario in **Ending 8**. Therefore, we also know that the knight would be lost if it had come from a rook's pawn.

This resource works with any other pawn. The consequences of this are important: pushing the defending king from the rear is useless. That is why pushing the king from one side (left or right) is more productive, as we will see in the following examples.

7.Kd3 Na3 8.Kc3 Nb1+ 9.Kb3 Nd2+ 10.Kc3 Nb1+ 11.Kd3 Na3 12.Ra2 Nb1 13.Rc2+ Kd1 14.Rg2 Kc1=

Outflanking

As we have seen, just pushing the king brings nothing. When the attacking king is behind the pawn, he must outflank his opponent to succeed.



Position 5.5

Here both kings and pawn are placed one rank higher than in the previous example, so the white

king has time for a new try: outflanking.

1.Rh5+

Let us check that, if Black is to move, there is no time for White: 1…c4! 2.Rh5+ Kd4 3.Kc6 (trying to push the king does not work: Black is not even forced to underpromote to a knight. Trying to outflank the opponent does not work either: the white king will fail) 3…c3 4.Rh4+ (4.Kb5 c2 5.Rh1 Kc3 6.Ka4 Kb2=) 4…Kd3 5.Kd5 c2=. Nevertheless, were the rook in a better position, White could win even if it was Black's turn. The first and the last square on the file are the best ones to help the king. I recommend this **Exercise:** check that White is actually winning, even with Black to move, if the rook occupies one of the marked squares.

1...Kd4 2.Kc6!

This new resource allows the strong king to lift the blockade. Now the white king will go round and appear on the other side of the pawn.

2...c4 3.Kb5

Other moves also win, but visually this is more suitable for the chosen technique.

3...c3 4.Kb4 c2 5.Rc5

5.Rh1 is also winning.

5...Kd3 6.Kb3

and the pawn is lost.

Summary of interesting ideas:

1. **Pushing the defending king from the rear does not work against b-, c-, d-, e-, f- and g-pawns: underpromotion to a knight saves the day.**
2. **In those cases, outflanking is the right way.**
3. **The strong king has no time to outflank his opponent when the pawn is on the 5th rank, unless the rook is at the rear of the pawn.**
4. **With a knight's pawn stalemate themes can occur.**

The study of these last positions has provided us with a good knowledge of the scenarios where the stronger side's king is at the rear of the pawn. However, if we want to fix this knowledge in our minds, examining the next series of positions should be both enjoyable and useful.

Here we compare the results with different locations of the rook and the advances of the pawn. Just observe and reflect. If you are not sure about the statements, try to calculate the variations in your mind: it will be a useful **Exercise**. If you have more doubts, play the variations on the board. In any case, do not go further unless all your doubts have been solved.

King opposed at the rear



Draw, no matter who moves Underpromotion to a knight With the rook on h1, White wins if he has the move



White to move wins Black to move, draw Outflanking The rook is best placed on the marked squares There, White wins even if it is Black's move

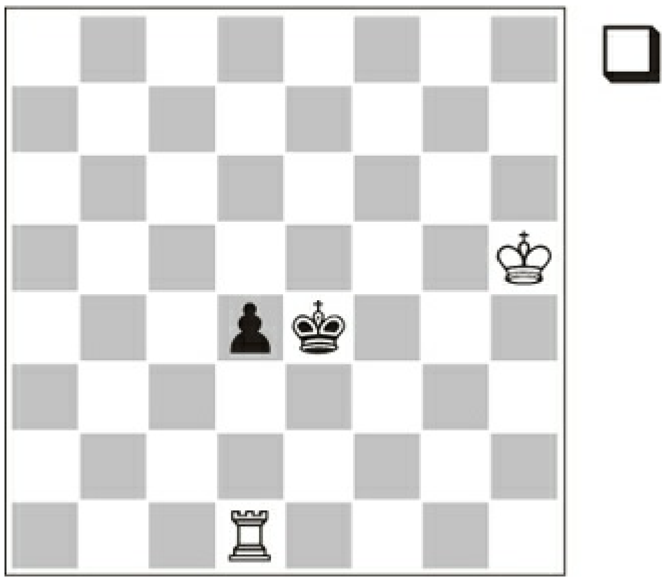


White wins, no matter who moves Outflanking

ENDING 24	Stronger side's king on one side

Shoulder-charging

As we have seen, the rook needs support from the king to control and capture the enemy pawn. That is why the defending king should always stand in the way of the pawn. Shouldering is always an interesting resource, but it becomes critical when the stronger side's king is approaching from the side.



Position 5.6

Many times, in order to help the rook, the king has to stand in front of his opponent and then the enemy king is pushed one rank (or file) back by means of a rook check. The purpose of this manoeuvre is twofold:

1. To bring our king closer.
2. To restrict the enemy king's (and/or pawn's) mobility.

We will name this way of struggling for a key zone 'shoulder-charging' or just 'pushing'. Of course, all winning chances are for the rook, but only in the long run. Sometimes there is no time to exploit the advantage.

1.Kg4!

Visually the best move, though not the only way to win. The white king tries to reach the g3-square on the next move and then push the enemy king. The threat is 2.Re1+.

If you have realised that 1.Kh4! is the other winning move, it means you have grasped the essence of the kings' struggle. The point is that, if White succeeds in establishing a king opposition on e3 and g3 (1…Ke3 2.Kg3 as in the game), Black will not escape from the checks.

1…Ke3

1…d3?! allows White to push the king: 2.Re1+ Kd4 3.Kf3 d2 4.Rd1 Kd3 5.Kf2+–.

2.Kg3!

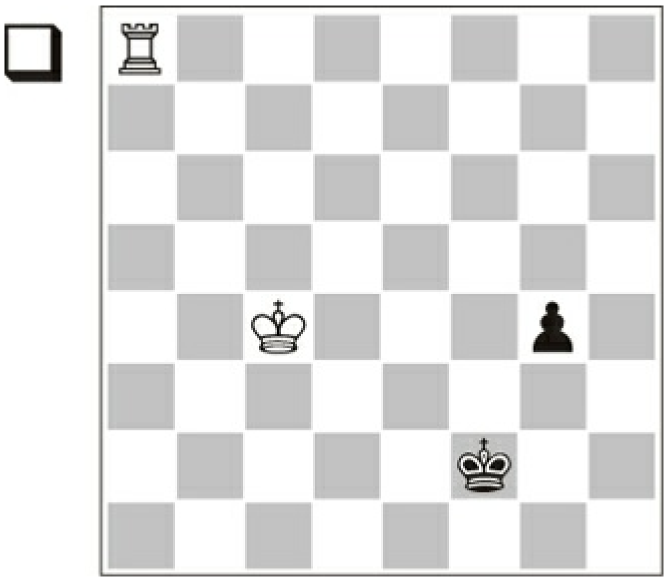
Again, using opposition to push the black king, who cannot escape because he must stay near his pawn. The immediate check does not work: 2.Re1+?! Kf2!? and White must go back to the right path: 3.Rd1! Ke3 4.Kg3.

2…d3 3.Re1+ Kd2 4.Kf2+–

And the white king has made it to the key zone and can aid his rook.

The time-gaining check

The Rook vs. Pawn ending is usually a struggle between two kings. The rook just appears on certain occasions, and not without effect. Apart from pushing the enemy king, a technique shown in the last example, sometimes a timely check helps the rook win an important tempo to improve its position and control the pawn. The typical scenario sees the stronger side's king coming from one side of the pawn.



Position 5.7

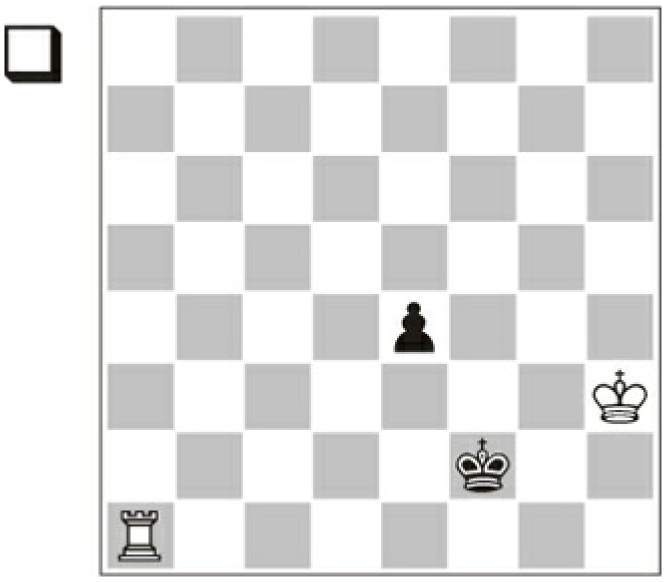
This is a typical scenario. The black king occupies an optimal position to secure the pawn's path to promotion. Therefore, there is no time to lose: the white rook must be immediately transferred to the rear of the pawn. **Mind the enemy king! Do not deliver this check if he can improve his position!** Advice for the defender: **Be careful not to advance the king before the pawn!**

1.Rf8+!

Other moves only draw. For instance: 1.Kd3 g3 2.Rf8+ (2.Kd2 g2 3.Rf8+ Kg3!=) 2…Ke1!=. The king avoids blocking his own pawn.

1…Ke2 2.Rg8! Kf3 3.Kd3 (shoulder-charging!) **3…g3 4.Rf8+ Kg2 5.Ke2+–**

Shoulder-charging and time-gaining check



Position 5.8

This is a simple example of a perfect combination of the two main attacking resources when both kings stand on the same side of the pawn.

1.Ra2+!

Again, the black king enjoys an ideal position to support his pawn, so this check is very annoying.

Other moves do not suffice to win: 1.Ra8 e3 2.Rf8+ Kg1! 3.Re8 Kf2 4.Kh2 e2 5.Rf8+ Ke3=; 1.Kg4 e3 2.Rh1 e2 3.Rh2+ Ke3 =.

1…Kf3

If 1…Kf1 2.Kg3 and the pawn is lost. Now the kings are opposing: the position is ripe for a rear check and a subsequent push.

2.Ra8 e3 3.Rf8+ Ke2 4.Kg2+–

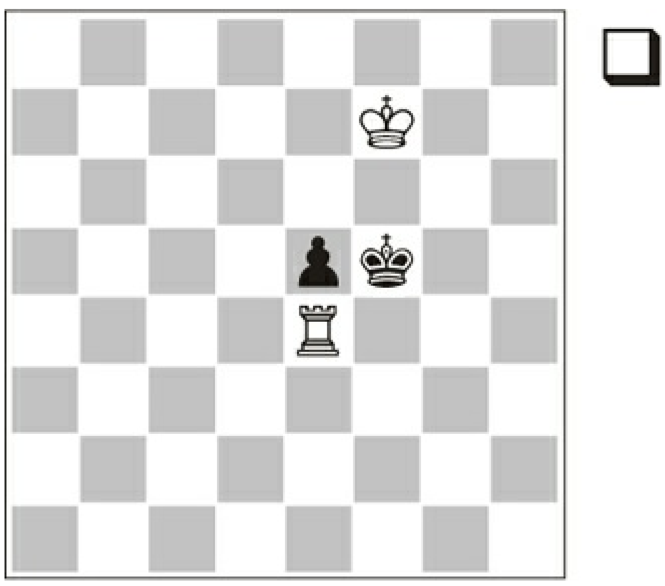
Summary of interesting ideas:

1. **When both kings are on the same side of the pawn, the main resources are shoulder-charging and rook checks.**
2. **With a normal rook position, the strong side wins if his king takes side opposition before the pawn reaches the 6th rank (see side-push series after Ending 28).**

ENDING 25	The rook in front of the pawn

Outflanking. The importance of zugzwang

In contrast with pawn endings, or positions with less powerful pieces, zugzwang positions very rarely appear with a rook on the board. Why? Because a rook usually has many moves at its disposal, and it is unlikely that they should all be harmful. Anyway, zugzwang plays a decisive role in a Rook vs. Pawn ending when the rook controls the pawn from a frontal position.

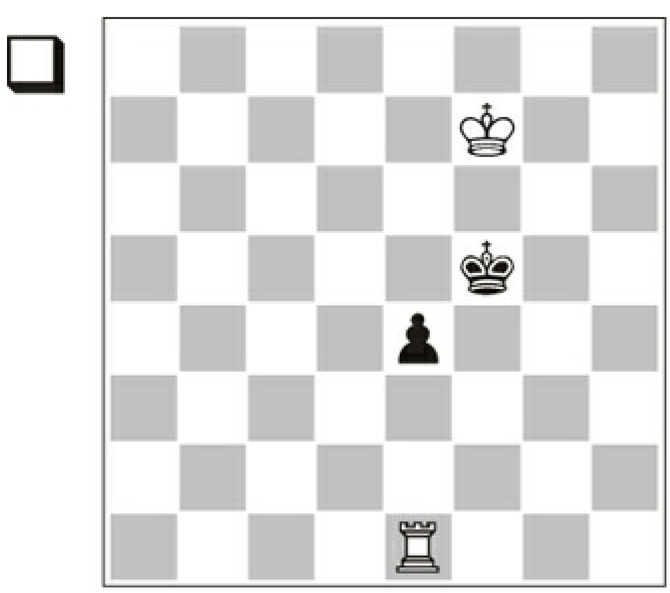


Position 5.9
Réti, 1928

This famous Réti composition illustrates a zugzwang situation that holds theoretical value.

1.Re2!

Or 1.Re3. For the time being, we are more interested in analysing the natural move 1.Re1? and then 1…e4!.



Position 5.10
(analysis diagram)

Here is the zugzwang position we want to discuss. King opposition prevents the white king from

approaching the pawn; any rook move on the first rank allows the pawn to move forward; a rook move to e2 or e3, or a check on f1, will only allow Black to gain time. 2.Ke7 is the most logical attempt: the white king tries to outflank his opponent (2.Rf1+ Kg4! 3.Ke6 e3 4.Ke5 e2 (the aforementioned gain of time) 5.Ra1 Kf3 6.Kd4 Kf2=). 2…Ke5!. Maintaining the king opposition is essential. This is another zugzwang position: White's outflanking succeeds against any other move: 2…Kf4? 3.Ke6 e3 4.Kd5 Kf3 5.Kd4 e2 6.Kd3 and the king has succeeded. 3.Kd7 Kd5!=, keeping the opposition and the zugzwang. There is no way to make progress.

1...e4 2.Re1!

If you have paid attention to all the previous comments and lines, you will easily understand the rest. Black cannot keep the opposition. It is a mutual zugzwang.

2...Ke5 3.Ke7!

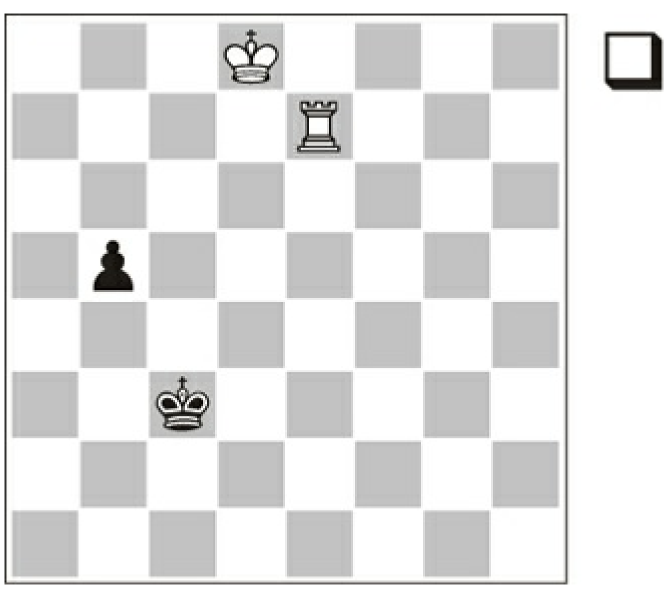
Now the black king has to allow outflanking.

3...Kf4 4.Kd6 (or 3…Kd4 4.Kf6 etc.) **4...Kf3 5.Kd5 e3 6.Kd4+–**

ENDING 26 — Special themes with a knight's pawn

As we already know, near the edge of the board pawns follow their own rules. This is especially true for the rook's pawn, and we will later see some examples dealing exclusively with this. However, there is also much to say about the knight's pawn. There are some stalemate themes that favour the defender, but also an important circumstance that works in the rook's favour: if the defending king is forced to stand in front of his pawn and then moves to the rook file, he can easily be forced in front of his pawn again.

The following example is a study by Kopaev that illustrates the special features of the knight's pawn. We will also use it to revise most of the motifs of Rook vs. Pawn endings.



Position 5.11

Kopaev, 1954

1.Rc7+!

A time-gaining check. Note that the king and the pawn are placed the same way as in 5.6, that is, the best position to secure the advance; therefore, this check is most annoying.

1...Kb3

With this move we can see the problems of the knight's pawn. 1…Kd3 fails to 2.Rb7 and White has won time: 2…Kc4 3.Kc7 b4 4.Kb6! (outflanking) 4…b3 5.Ka5 Kc3 6.Ka4 b2 7.Ka3. A completely successful example of outflanking.

2.Kd7

The meaning of 1…Kb3 is clearly seen in 2.Rb7? b4 3.Kc7 Kc3! and compared to 1…Kd3 2.Rb7= Black has won a tempo.

2...b4 3.Kd6!

An important point. The white king approaches the pawn but, at the same time, hinders the black king's way out to the **'right side of the knight's pawn'**. 3.Kc6? would be a typical mistake in view of 3...Kc4! (shoulder-charging) 4.Kb6+ Kd3 and now that distractions have ended, it is time to count: Black needs 4 tempi to promote, whereas White needs 5 to control the b1-square with both pieces; therefore, it is a draw. 5.Ka5 b3 6.Rb7 Kc2 7.Ka4 b2=.

3...Ka2

Here comes disaster. Of course, the black king must get out of the pawn's way, but the rook's file is too narrow.

4.Kc5!

The c-file does not matter anymore. **4.Kd5** was also winning. Even **4.Ra7+?!** wins. Though a little more awkward, this move shows how annoying it is for Black that his king is in front of his pawn. 4...Kb2 5.Rc7! Now this is the only winning move, hindering the black king's 'right way' out. (5.Kc5? Kc3!=) 5...b3 6.Kd5 Ka1 7.Kc4 b2 8.Ra7+! and the black king must obstruct his pawn again, thus losing, in the same manner as in the main line (see below).

4...b3 5.Kb4!

The white king uses and abuses the awkward position of his black counterpart. Now 5.Ra7+ or 5.Kc4 would win as well.

5...b2 6.Ra7+

With any other pawn, the black king could move leftwards, but now he has to obstruct his pawn.

6...Kb1 7.Kb3! Kc1 8.Rc7+ Kb1

This is another special feature of the knight's pawn, in this case in Black's favour: stalemate chances. But here it can be avoided.

9.Rb7

Always be careful! Not 9.Rc2?? Ka1!=.

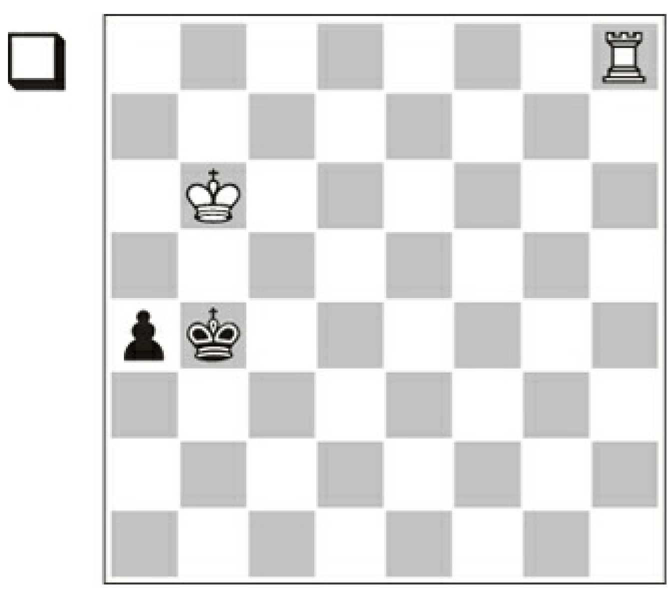
9...Kc1 10.Ka2+–

Conclusion: If the defender's king can be forced in front of his knight's (or rook's) pawn, his chances are dramatically decreased.

ENDING 27 | **The rook's pawn. Pushing from the rear**

Knight at the corner = lost

When we studied **Ending 9** we saw that it was losing with the knight in the corner. Therefore, Position 5.4 is a different story if Black has a rook's pawn. The king's pressure from the rear is thus very effective against a rook's pawn.



Position 5.12

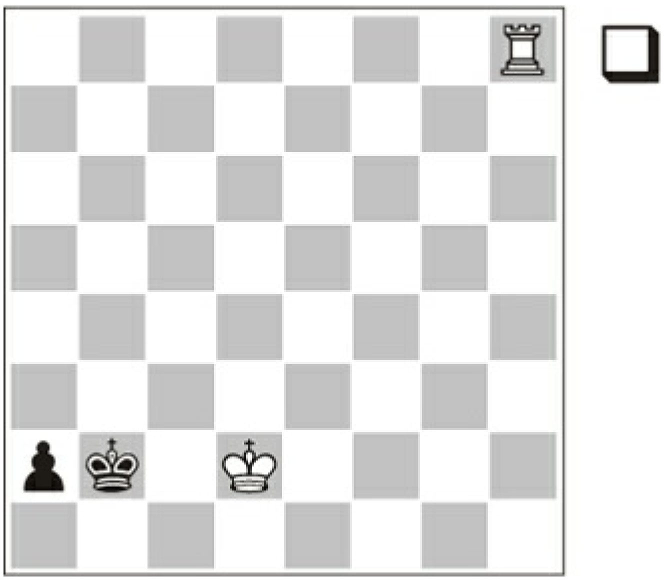
There are no subtleties here. White wins straightforwardly.

1.Rh4+! Kb3 2.Kb5 a3 3.Rh3+ Kb2 4.Kb4 a2 5.Rh2+ Kb1 6.Kb3! a1N+ (6...a1Q 7.Rh1 mate) **7.Kc3+–**
And the knight is lost.

Conclusion: The king pushing from the rear is a very effective attacking technique against a rook's pawn, in combination with rook checks. Remember that it is not so effective against other pawns.

ENDING 28 The rook's pawn. Lateral push

Stalemate in the corner



Position 5.13

A rook's pawn cannot save the game by underpromoting to a knight; however, the stalemate chances make up for this drawback. That causes some players to pin their drawing hopes on the rook's pawn, but that is a mistake.

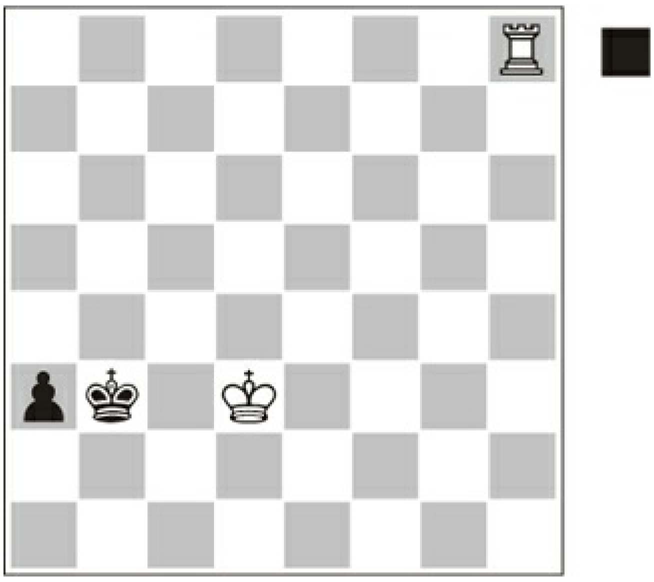
1.Rb8+ Ka1!

The king hides behind the pawn and is stalemated; therefore, there is no time for the white king to approach the pawn, and it is a draw. It would also be a draw with any other pawn. With any other pawn, 1...Ka3? would be the right square to draw, but here the edge of the board hinders promotion: 2.Kc2!+– No matter what Black promotes to, White will capture it.

2.Ra8 (2.Kc2 is stalemate) **2...Kb2 3.Rb8+ Ka1! 4.Rc8 Kb2=**

Let us now see what happens with the lateral push if we move both kings and the pawn one rank up.

The extreme position



Position 5.14

In a Rook vs. Rook's Pawn ending, this is a key position you have to learn by heart. Most positions with no clear winner end up in this situation during analysis. This is an extreme position because, with Black to move, it is a draw, whereas White wins if he has the move (with simply 1.Rb8+).

Moreover, as shown in the following series of twin diagrams, things change if we move the pieces one rank up or down. It does not matter where the white rook is (the exception is the b8-square).

1...Kb2!

Avoiding the push. 1…a2? 2.Rb8+ Ka3 3.Kc2! and wins because a knight in the corner is always lost: 3…a1N+ 4.Kc3+–.

2.Rb8+

Other moves do not bring success either: **2.Kd2** a2! (**Ending 28**) 3.Rb8+ Ka1! Stalemate motifs!; **2.Rh2+** Kb3!=. Typical: when the rook is misplaced (not ready to check from the file), the best policy is to obstruct the enemy king (2…Kb1? 3.Kc3+–; 2…Kc1? 3.Kc3).

2...Kc1!

Since there is no time to prepare a stalemate, obstructing the pawn is pointless.

3.Kc3 (3.Ra8 Kb2) **3...a2 4.Ra8 Kb1 5.Rb8+ Kc1!=**

Beware of overconfidence in stalemate: that would work with the white king on d2, but now 5… Ka1?? fails to 6.Rf8 and mate.

Conclusion: The rook's pawn is not worse than the others against the lateral king push, thanks to stalemate chances.

Lateral push positions



Draw, no matter who moves – stalemate



White to move, wins Black to move, draw



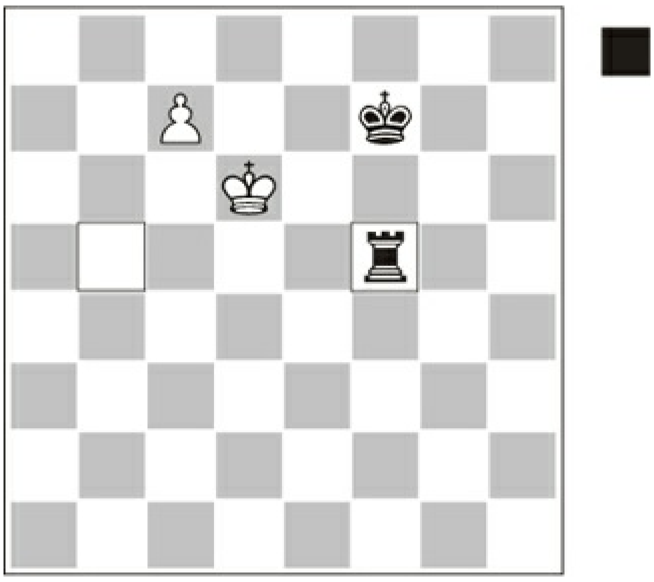
White wins, no matter who moves

Check these three positions in your mind as an **Exercise**. If we move both kings and the pawn one file to the right, the statements would not change, though some defensive moves would be different. You can check this as another interesting **Exercise**.

ENDING 29 The pawn wins against the rook

So far we have seen examples where the rook was trying to win, but there is one scenario where the rook faces certain problems to stop the pawn and can even lose. The best-known example is the so-called Barbier-Saavedra position, which involves stalemate and underpromotion motifs. However, this situation can also arise in a more standard way, as we can see below.

I recommend studying this example to understand how ideas from theoretical endings can apply to more complex positions.



Position 5.15

If the side having a rook is to move, given the positions occupied by both kings and the pawn, there are just two squares where the rook loses: those two marked on the board, f5 and b5. The winning sequence is long, but clear. The first move has to be a rook check hindering immediate promotion.

1...Rf6+ 2.Kd5!

First subtlety: not 2.Kd7 Rf1!=.

2...Rf5+ 3.Kd4

And not 3.Kc4 Rf1=.

Apparently, the white king cannot flee from the checks, but there is one square where he can hide: b7. We just need a way to cross the c-file.

3...Rf4+ 4.Kd3 Rf3+ 5.Kc2 Rf2+ 6.Kb3!

That is the way! Now the king hides on the b7-square without trouble.

6...Rf3+ 7.Kb4 Rf4+ 8.Kb5 Rf5+ 9.Kb6 Rf6+ 10.Kb7 1-0

Recommended **Exercise**: check that Black also loses with the rook on the b5-square. The sequence is similar.

6. Rook vs. 2 Pawns

The struggle between a rook and more than one pawn is also common in practice, but there is a greater variety of scenarios. The most interesting cases arise with two connected pawns, where some positions and manoeuvres are worth knowing.

In general, we may say that most players tend to overestimate the strength of the pawns, which causes them to misjudge some positions. Attacking resources are more hidden (the defence is clear: just push the pawns), but there are many, and they are worth careful analysis. Three interesting cases can be considered in the struggle between a rook and two connected pawns:

1. Kings play no part.
2. Both kings play a part.
3. Only the defending king plays a part.

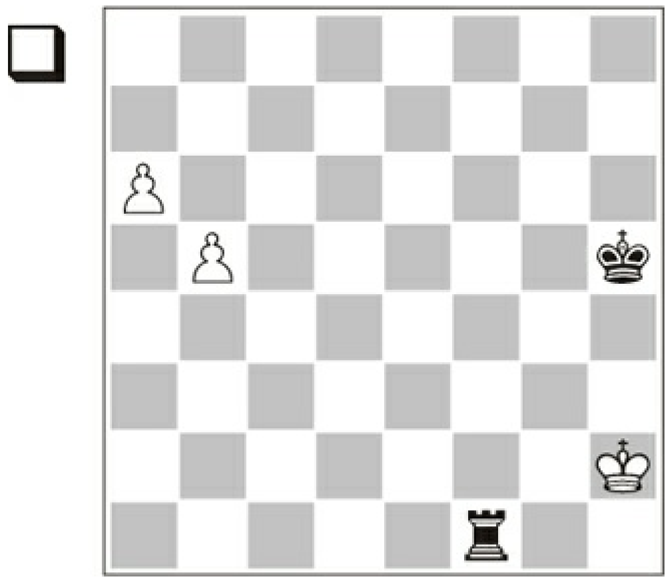
Each of these cases presents some special features. There is a fourth possible case (the stronger side's king plays a part, and the other king does not), but that is too obvious.

ENDING 30	Kings play no part

Extreme position. Rook behind the pawns

When kings play no part, the rook usually captures the pawns unless they are far advanced.

This is the extreme position where neither king plays a part. White wins if it is his turn, and loses if it is Black to move. There is no happy medium. Play is easy in both cases.



Position 6.1

1.b6

1.a7 Ra1 2.b6+– also brings promotion.

If Black moves, this is the winning plan:

1. Transfer the rook to the rear of the more advanced pawn.
2. Attack the other pawn and capture both. That is: 1...Ra1 2.Kg3 Ra5 and wins.

1...Rb1 (1...Rf6 2.b7+–) 2.a7+–

And one pawn promotes.

Conclusion: Two connected pawns on the 6th rank win against a rook; the same goes for one pawn on the 7th and the other on the 5th. If the pawns are farther from promotion and the rook is at the rear of the more advanced pawn, the pawns are captured.

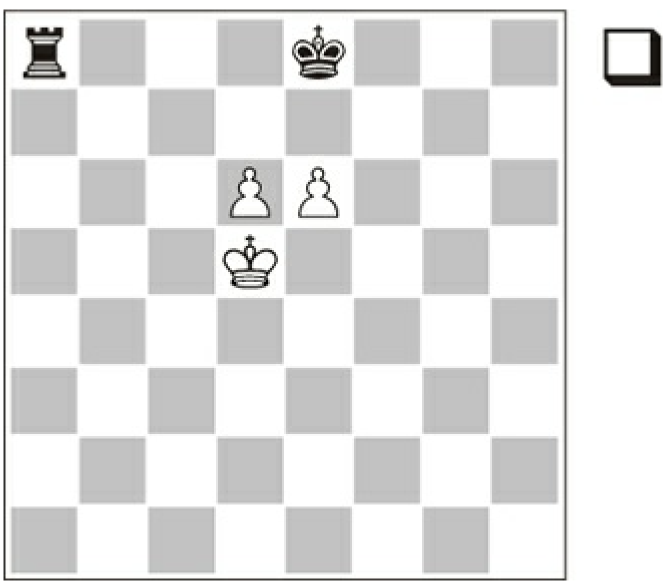
Rook in front of the pawns

If the rook is in front of the pawns (i.e. here on the g8-square) there are some differences to note. If the pawns start, the result is the same. However, if the rook starts, Black can stop the pawns (here, with …Ra8) but not capture them. Then, the king race will be decisive.

ENDING 31	Both kings play a part

Stronger side's king in front of the pawns

When the king and the rook work together to stop the pawns, they usually win. If the stronger side's king achieves a position in front of the pawns, not even the most favourable scenario (except, of course, promotion) can save the game for the defender. The analysis of 6.2 is very simple.



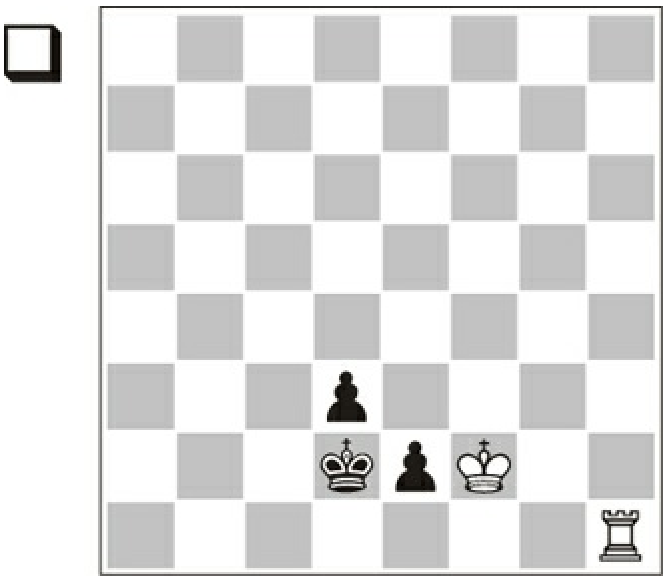
Position 6.2

1.Ke5 Ra1 2.Kd5 Re1 3.d7+ Ke7

And the pawns are captured.

Stronger side's king on one side of the pawns

If the stronger side's king only manages to stand on one side of the promotion squares and the other king supports his pawns, things are more complicated.



Position 6.3

Here White needs to exploit zugzwang themes on many occasions. First, a waiting move.

1.Ra1! Kc3 2.Ke3 Kc2 3.Rh1

Zugzwang again.

3...Kc3 4.Rc1+ Kb2 5.Kd2+– and the pawns are captured.

Things change if we move this position more than one file to the left.

Rook vs. 2 Pawns series



White to move wins



White to move: Stalemate Exercise: check this statement

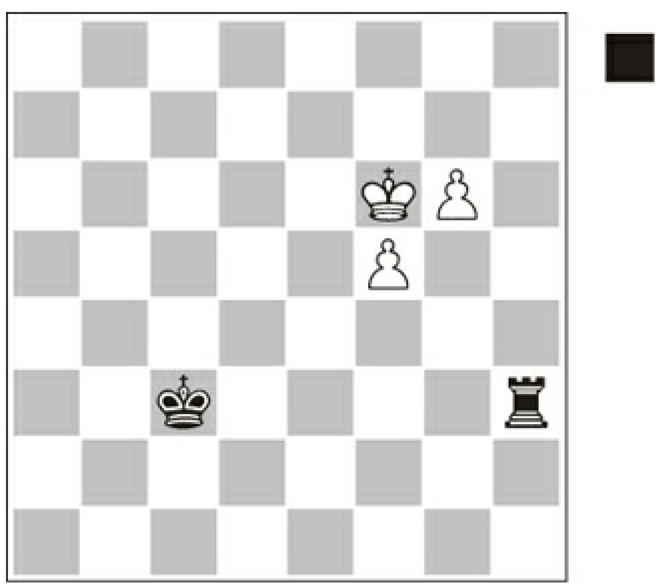


Stalemate, no matter who moves

ENDING 32	Only the defending king plays a part

The king is in contact with the less advanced pawn ('the tail-hook')

When the king supports his pawns, and his counterpart is far from them, the pawns can win. However, the rook has more resources than one usually thinks, as we will see in the following examples:



Position 6.4

Kopaev, 1958

Here the plans for both players are clear:

The side with the pawns will try to push one, exchange it for the rook and then promote the other pawn.

The side with the rook will try to bring the king closer, then sacrifice the rook for the more advanced pawn and capture the other with the king.

However, this is not a simple race or a tempi count: the rook has many resources to hinder the pawns' progress. I do not think that many players would intuitively place their bets on the rook in the diagram position. A simple count justifies this lack of confidence, but a deeper analysis turns the tables.

1...Rf3!

A powerful resource worth taking into account: the rook prevents the king moving to g7 to push the f-pawn, which is closest to the black king, as then Black could not attack the g-pawn. The alternatives are:

1...Rg3 2.Kg7!. This is the key move, and a very important resource for the king in supporting his

pawns. Dvoretsky calls this method ‘a change of the leader’. The king secures the advance of his f-pawn and wins, which otherwise would be impossible (2.g7 Kd4 3.Kf7 Ke5 is an easy draw). 2…Kd4 3.f6 Ke5 4.f7 Rf3 5.f8Q. The f-pawn promotes without the black king attacking the g-pawn.

Therefore, 1…Rg3 seems to be a waste of time; **1…Kd4** looks better, but again: 2.Kg7!. The same idea as in the previous line, but a more elaborate execution. Other moves only lead to a draw. 2…Ke5 3.f6 Rf3 (3…Ke6 4.f7) 4.f7+–. This is the problem: Black cannot exploit the extra time to attack the backward pawn (i.e. the g6 pawn) with the king, so he loses.

2.g7

2.Ke6 Rg3! and neither pawn can advance; 2.Ke5 looks nonsensical compared to 2.Ke6, but it has a hidden idea: 2…Rg3! 3.f6!?.

The point. Now, if the rook captures the g-pawn, the f-pawn advances and **Ending 29** (where the rook loses) arises. But after 3…Rg5+!= Black will sacrifice the rook for the two pawns (3…Rxg6?? 4.f7+– **Ending 29**).

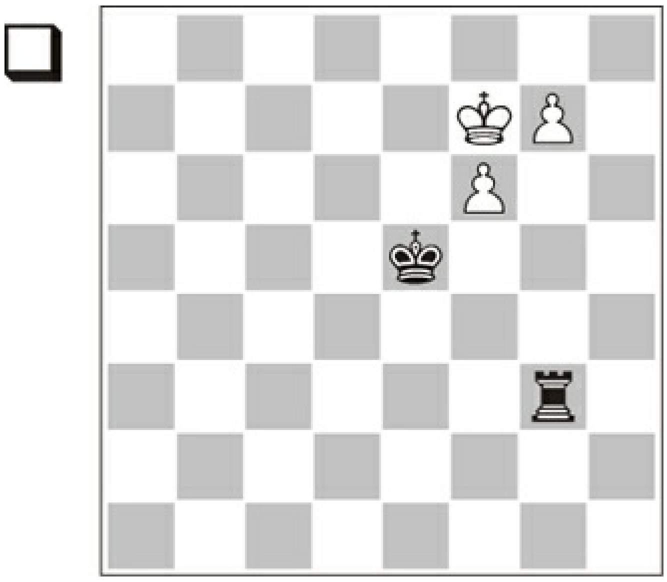
2...Rg3

The rook has lost a tempo, but the king is closer to the backward pawn.

3.Kf7 Kd4 4.f6

4.g8Q Rxg8 5.Kxg8 Ke5=.

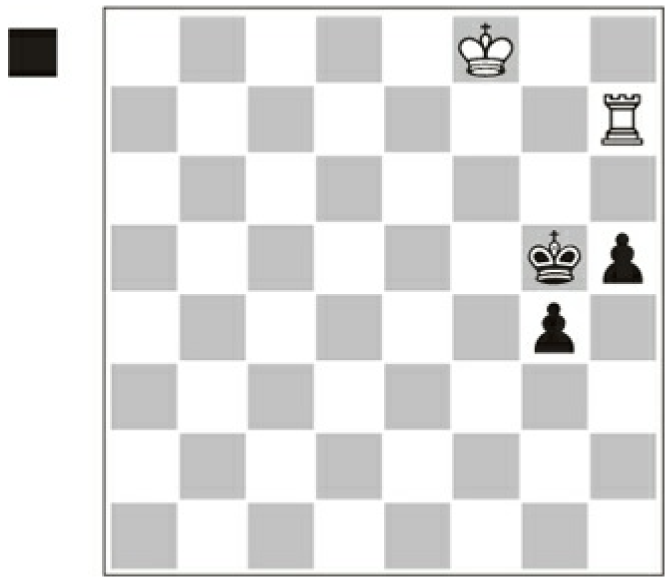
4...Ke5=



Position 6.5

Though further analysis is not necessary, we should look at this position closely, because this is the most typical extreme situation in this endgame. This is the situation that Black has been aiming for ever since his paradoxical first move: the rook controls the advanced pawn’s promotion, whereas the king keeps an eye on the backward pawn. It is an immediate draw. Dvoretsky calls this situation the ‘tail-hook’, an expression used by pilots and a very visual metaphor.

The series of checks



Position 6.6

Lariño – Picazo

La Roda, 2006

This position comes from an actual game. Once again, we can see that, although White's position looks desperate because the king is far away from the promotion squares, there are plenty of resources for the rook. Concretely, this example shows the effectiveness of a series of checks to set up the 'tail-hook'.

1...g3

1...h4, the other logical advance, leads to a draw as well:

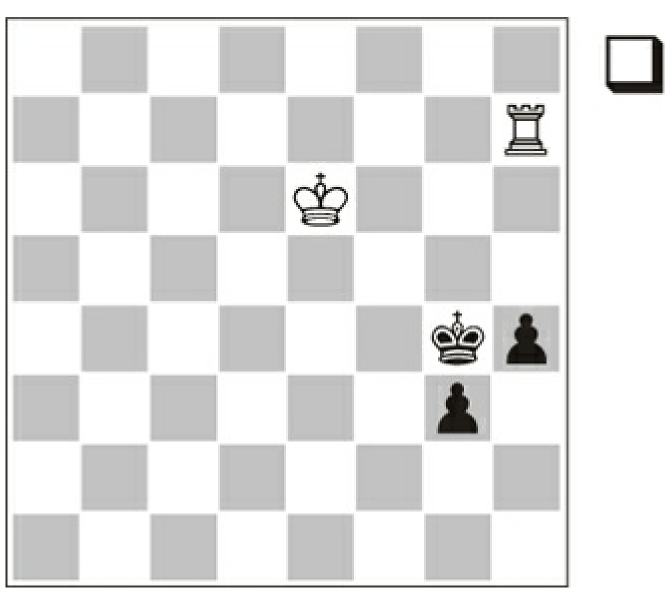
A) 2.Rg7+. Bringing the king closer also leads to a draw, but this move (less intuitive in appearance) reveals the idea in a clearer way: the king approaches through the g- and h-files until he makes contact with the backward pawn. 2...Kf4 3.Rf7+ Kg3 4.Kg7 h3 5.Kg6! (it is important to leave the h-file open in case Rh7 is needed) 5...Kh2 (5...h2 6.Rh7 Kg2 7.Kg5 g3 8.Kg4=) 6.Kg5 g3 7.Kh4 g2 8.Rg7=;

B) 2.Ke7 h3 3.Ke6 Kf4 4.Kd5 Kg3 (4...g3 5.Rh4+=) 5.Ke4 Kh2 6.Rg7 g3 7.Kf3 g2 8.Kf2 Kh1 9.Rg6 h2 10.Rxg2=.

2.Ke7

It is logical to bring the king closer, but again it is clearer to start by delivering rook checks: 2.Rg7+ Kf4 3.Rf7+ Kg4 4.Rg7+ Kf3 (4...Kh3 5.Kf7 g2 6.Rg5! h4 7.Kg6 Kh2 8.Kh5 h3 9.Kh4) 5.Rf7+ Kg2 6.Rh7.

2...h4 3.Ke6 Kg4



Position 6.7
(analysis diagram)

This is the position that makes this ending interesting.

4.Ke5?

White plays a logical move (to bring the king closer)... and reaches a losing position. It was necessary to switch to the other plan: the rook delivers checks and the king tries to get in contact with the backward pawn.

4.Rg7+! Kf3 (4...Kf4 5.Rh7 g2 6.Rxh4+=; 4...Kh3 5.Kf5 Kh2 6.Kg4=) 5.Rf7+ Kg2 (5...Ke3 6.Rg7! hindering

the pawns’ advance: 6…Kf2 7.Rf7+ Kg1 8.Rh7!) 6.Kf5 h3 7.Kg4 (the king contacts the pawn: draw) 7…h2 8.Rh7 Kf2 9.Kf4=.

4...g2?

Returning the favour right away. Calculations are very complex here. Placing both pawns on the 6th rank was winning, though there were some mating traps to avoid: 4…h3! 5.Ke4 (5.Rg7+ Kf3 6.Rf7+ Ke2! and the pawns promote without aid) 5…h2 6.Rh8 (6.Rg7+ Kh5! 7.Kf4 g2–+) 6…g2 7.Rg8+ Kh5! (the king flees from mate; 7…Kh3? 8.Kf3 g1N+!=) 8.Kf5 Kh6 9.Kf6 Kh7–+.

5.Ke4 Kh3 6.Rg7 Kh2 7.Kf4?

7.Kf3! h3 8.Kf2 Kh1=.

7...h3 8.Kf3 g1Q 0-1

7. Same-coloured bishops: Bishop + Pawn vs. Bishop

Again a simple but nevertheless important chapter. Endings with same-coloured bishops arise with reasonably frequency. When there are many pawns on the board, the playing technique is easy and well known, especially the concept of the 'bad bishop'.

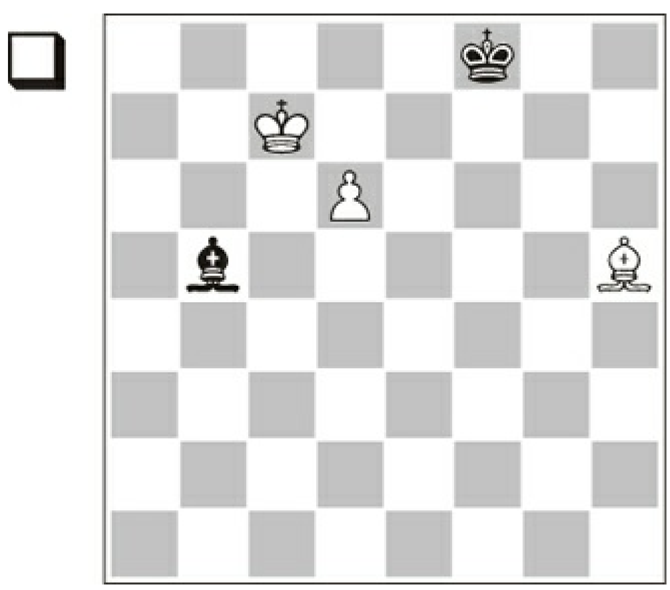
However, with just one pawn, many players ignore an essential defensive method: rear opposition, which we will see in **Endings 34 and 35**. Since this is not an intuitive idea, few players find it if they do not know it. Even distinguished players have resigned in drawn positions.

Here we must acknowledge the labour of Averbakh and Centurini, who studied almost all possible positions in great detail before the advent of computers and Nalimov endgame tablebases.

Thanks to the labour of these great analysts, we can state that there is a series of very clear positions which help us find our way with ease. We could talk about four basic cases; actually, I will list them that way in the annotations but, since I have more confidence in descriptive headings, I will not label these endings as First Case, Second Case and so on, though some readers may prefer that system.

It is easy to see that, if the defending king stands on a square in front of the pawn opposite to the bishops' colour, it is an ironclad draw. There is no need for analysis here; we can call this scenario the Zero Case. The ending becomes interesting when the defending king cannot secure a position in front of the pawn.

ENDING 33 — Driving off the defending bishop



Position 7.1

Here we have what we could classify as the **First Case:** the stronger side's king near his pawn and ready to offer a bishop trade, and the defending king far away. Then the stronger side usually wins with a standard manoeuvre: driving off the enemy bishop from the diagonals which cross the pawn's path.

1.Bf3

White is ready to move the bishop to c6, the ideal square. Trying to trade bishops on d7 also wins, but then the black bishop could relocate and offer resistance from the other diagonal, and the driving-off process would be longer. It is easy to see that, in order to drive off the defending

bishop, the bishop swap has to be arranged where it does not interfere with the advance of the pawn. While this is obvious, the consequences are important for the theory of this ending.

1...Ba4 2.Bc6

The black bishop has to leave or allow the exchange.

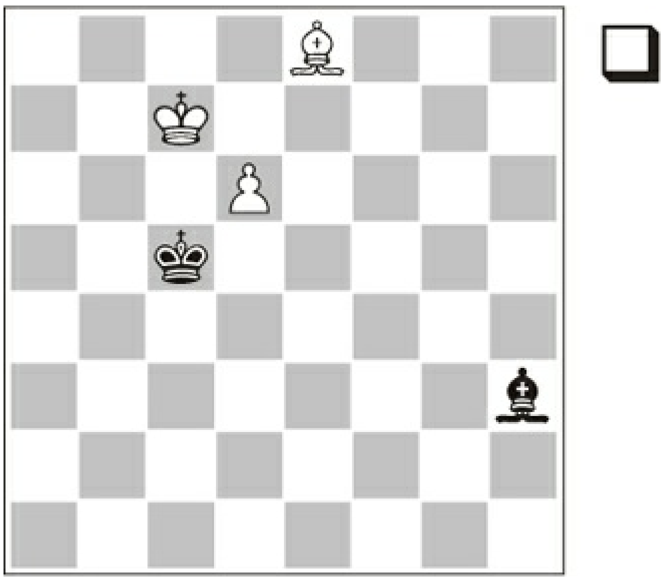
2...Bxc6 3.Kxc6 Ke8 4.Kc7

And the pawn promotes. It has been easy.

Conclusion: Without the support of the defending king, the bishop can always be ousted from the diagonals which control the advances of the pawn. Of course, then it is clear that the game is won if the pawn crosses the last blockade square.

So, are there hopes for the weaker side? The bishop needs king support, but how exactly can the king give support?

ENDING 34 In the rear of the pawn



Position 7.2

This is what we could name the **Second Case:** the defending king has reached rear opposition.

From his position he hinders an essential manoeuvre: now the stronger side cannot offer a bishop trade without obstructing the pawn! The driving-off manoeuvre does not work now:

1.Bd7

This is the only square available for the bishop exchange: on c8 White would lose the pawn. The black bishop moves away but gets ready to occupy the other diagonal (a4-e8).

1...Bf1 2.Bg4 Bb5

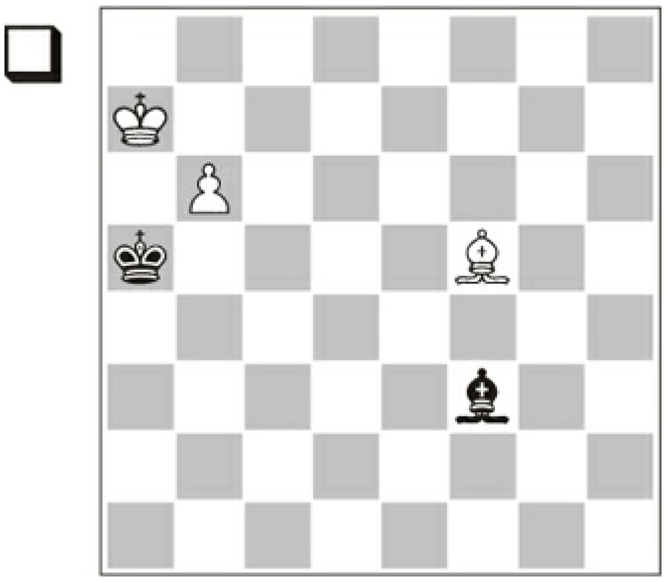
It becomes apparent now that, if the black king did not control c6, White would have the winning manoeuvre Bf3-c6, but now it is impossible.

3.Bd7 Be2 4.Bc6 Bg4

It is an ironclad draw.

Conclusion: When the defending king cannot stand in front of the pawn, the ideal position for him is behind the stronger side's king, in opposition.

As we will see right now, we should not rush to assume that this defensive technique always brings a draw.



Position 7.3

This position belongs to the **Third Case**.The defending king is behind the pawn, similar to the second case; however, a special feature will help us distinguish between the second and third cases.

One of the diagonals is very short. How short? Less than 4 squares long. That is the point. Let us see why, so that we can learn the rule and thus guess the exceptions.

1.Bc8

The first stage of the winning plan is driving off the black bishop from the long diagonal.

1...Be4 2.Bb7 Bd3 Or 2...Bf5 3.Bf3 Bc8 4.Be2 zugzwang. **3.Bf3 Ba6 4.Bg4!** Zugzwang.

There is no good move for the king, and the short diagonal is controlled by White: two squares by the king and one by the bishop. Let us pay attention to this situation once again. The bishop can just take one square away from its counterpart; therefore, the king must take care of two.

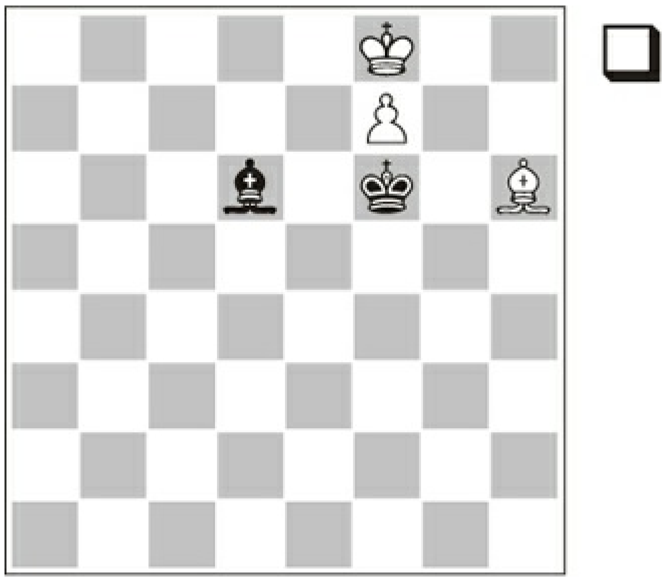
Now we can draw some important conclusions.

Conclusion: When the defending king has taken rear opposition, the ending is drawn if both control diagonals are 4 or more squares long. The stronger side wins if one diagonal is less than 4 squares long and he can control them all with the king and the bishop.

Of course, this rule only applies when the pawn has to cross the last blockade square. If the pawn is less advanced and there is yet another blockade square, the stronger side succeeds only in crossing the first obstacle. Victory will depend on the success or failure of the new defensive set-up on the next blockade square.

Following this rule about the length of the diagonals, some theoretical studies present a borderline between drawn and winning positions depending on how advanced the pawn is. These borderlines are not my cup of tea, though I cannot deny they have certain theoretical interest. It think it is better to remember why things happen.

An apparent exception. 3-square diagonal. The attacking king controls just one square.



Position 7.4

If we apply the previous rules, Position 7.4 is quite easy to understand. Where should the white king go? It is logical: where he can control more squares of the short diagonal.

1.Ke8?

Let us look at the wrong move and make sure that is impossible to win that way. 1.Kg8! Kg6 2.Bf8 wins in the same fashion as in the previous example.

1...Ke6

Adopting rear opposition, an easy and known method, from the beginning. We have plenty of time, so here we could play first …Kg6 or …Kf5. However, at the key moment, when the white bishop goes to e7, the black king should always be ready to get to e6.

2.Bf8 Bf4 3.Bb4 Bh6 4.Bd2 Bg7

The bishop has one more square.

5.Be3

Semi-zugzwang. Black has to move the king, but nothing happens.

5...Kd6 6.Bd2 Ke6

Time to go back. It is interesting to note that other king moves would lose, since they would allow the white king to make it to the other side of the pawn. 6…Kd5 7.Ke7 Kc6 (or 7…Be5 8.Kf8!) 8.Ke6 and, with the king on the other side of the pawn, White wins.

The winning sequence is easy to analyse and I suggest doing it as an **Exercise.**

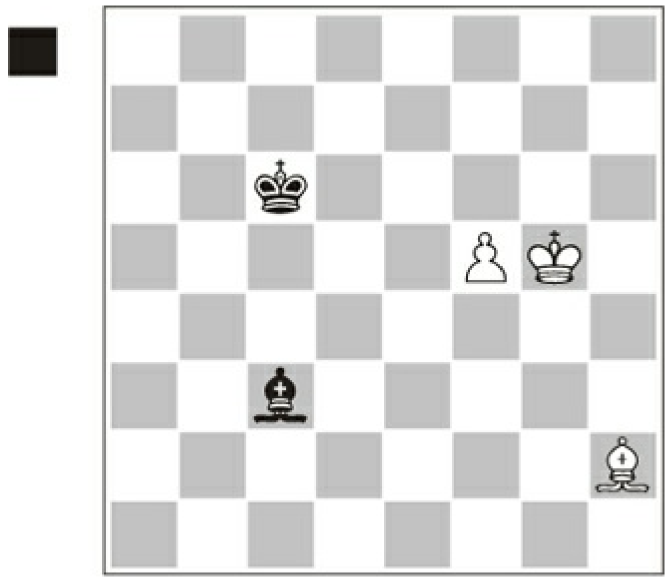
7.Bc3 Bh6

Draw. There is no way to make progress. The white king controls just one square on the short diagonal, so it is impossible to win.

ENDING 36 Frontal defence

There are not many studies about this situation, but I have found some mistakes in its application in practice. We can consider this the **Fourth Case.**

Since we already know the basic situations, let us start with this position, still far from the key moment:



Position 7.5

Kurajica – Markland

Hastings, 1971/72

1...Kd7?!

The black player shows his ignorance of the basic drawing procedure, thus making life difficult for himself. The simplest defensive plan was 1…Kd5! 2.Kg6 Ke4 3.Bc7 Kf3 4.Bd8 Kg4= and the black king makes it to the rear of the pawn, getting the opposition.

2.Kg6 Ke8!

Now there was no time to get to the g4-square, but it is still a draw. Black can try another drawing procedure. It is less well known and more delicate, but worth knowing, in case one reaches a position where the rear opposition defence is not available. The king heads for the g8-square.

3.Bf4

Trying to cut off the black king's path to f8 would not work. Black just waits: 3.Bd6 Bd4=.

3...Bd4?

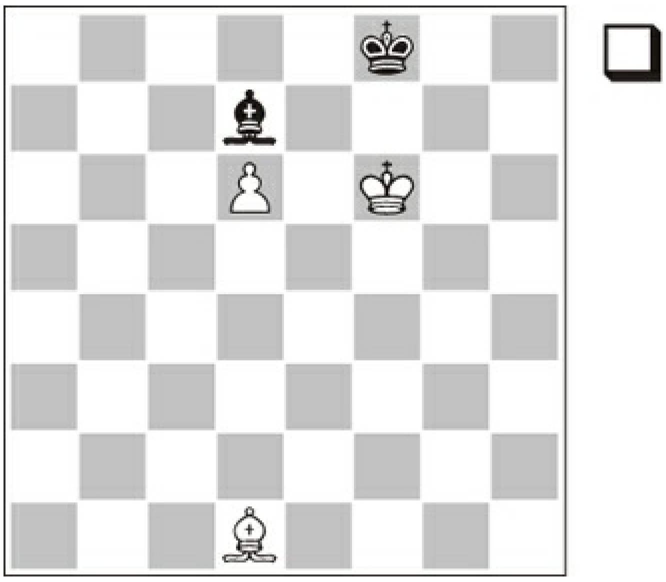
However, Black fails to find the second defensive method as well. The correct move was 3…Kf8! 4.Bh6+ Kg8!. The key point is that when the black king is here, White cannot offer the bishop exchange on g5, since it leads to a drawn pawn endgame. 5.Bg5 Bd4 6.Bf6. As usual, if the attacking side offers a bishop exchange in front of the pawn, the defending bishop just switches to another diagonal. 6…Bf2 7.Be5 Bh4 8.Bf4 Bd8 9.Bg5. This confirms the draw but, anyway, there is no way to make progress: 9…Bxg5 10.Kxg5 Kf7=.

4.Bh6!+–

And Black resigned, maybe because the game was adjourned here. In any case, victory comes easily, since White can offer the bishop exchange without obstructing his pawn: 4…Ke7 5.Bg7 Bc5 6.f6++–; 4…Bc3 5.Bg7 Bb4 6.f6+–.

Conclusion: Frontal opposition when the defending king is next to the promotion square works if the pawn cannot go further than the 6th rank.

Revision of some assorted themes



Position 7.6

Averbakh, 1972

An interesting position. We can revise some of the themes previously introduced and note some well-known tricks.

1.Bh5!?

The only attempt to win. If White allows 1…Ke8, the black king reaches d8, with an immediate draw.

1...Bh3

There are two possible winning attempts. Black has to be careful in either case.

2.Ke5!?

The most dangerous winning attempt. Black can draw if he grasps White's plan and knows the defensive technique of transferring the king to the rear of the pawn. The white plan is to take his king to the c7-square. Black's only defence involves transferring his king to c5. There is time enough for this, but Black will not do it unless he knows what is going on.

2.Bg6!? White tries to win by trading bishops on f5. It looks like a terrible threat, but it is easy to prevent: 2…Bd7!. Only move. Note that the position would be more dangerous with a knight's pawn. Then a zugzwang would arise, because the bishop could not go to the short diagonal. Now the bishop can move along the other diagonal. (2…Bg4? 3.Bf5! winning the pawn endgame: 3…Bxf5 4.Kxf5 Kf7 5.Ke5 Kf8 6.Kf6+–) 3.Bf5 (White burns his bridges) 3…Ke8!=. Now the king reaches a dark square, and it is a clear draw.

3…Bc6 is not losing either, but it is important to point out that, with a knight's pawn, the corresponding move (i.e. …Ba6) would lose. You can check it as an interesting **Exercise**.

2...Bd7?!

Waiting means just losing, though this move does not bring immediate disaster.

2…Kg7!. If we know **Endings 33 and 34**, we can understand this is the right defensive procedure for Black.

3.Kd5 Ba4?

It was not too late for the king to arrive: 3…Kg7! (only move now) 4.Kc5 Kf6 5.Kb6 Ke5 6.Kc7 Bh3 (6…Ba4? would lose a tempo and the game: 7.Bf3! Kd4 8.Bc6+–) 7.Be8 Kd4! 8.Bd7 Bf1 9.Bg4 Bb5 10.Bf3 Kc5=. Just in time!

4.Kc5 Bd7 5.Kb6 Ba4 6.Kc7+–

See **Ending 33**.

8. Bishop vs. Knight: one pawn on the board

After Rook endgames, the most common endgames are Bishop vs. Knight (see statistics). With many pawns on the board, these endings are very interesting from a strategic point of view.

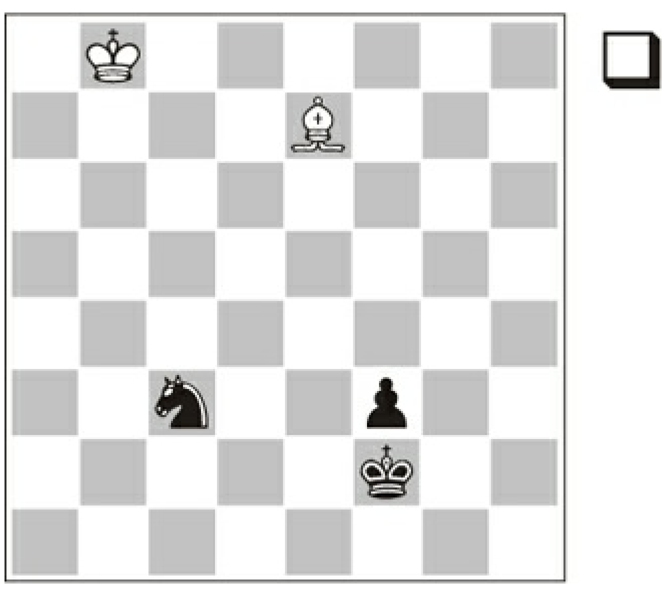
On the contrary, Bishop vs. Knight theoretical battles with just one pawn on the board are less interesting from a practical point of view; therefore, this will be one of the shortest chapters in the book.

These endings are less interesting because either they can be easily solved (most positions) or it is difficult to set useful rules to solve them. We can say these endings are richer in tactics, maybe due to the presence of a knight or the inherent knight/bishop imbalance.

Section 1. Knight + Pawn vs. Bishop

Let us first focus on this case, the most interesting one. Compared to the previous chapter, here the bishop manages to draw with great ease. This theoretical impression is confirmed by the statistics (Bishop + Pawn vs. Bishop: 47% wins; here just 25%). This is consistent: the bishop is a stronger piece on an open board. More problems arise when struggling against a rook's pawn and, especially, when one of the two control diagonals is too short.

ENDING 37	Central pawn



Position 8.1
Chéron

As we have just said, these endings are rich in tactics and small details can change the final result. There are not many theoretical conclusions to draw: the analysis of just one position is enough to grasp the main points.

Here, there are great drawing chances even when the defending king is far away, especially if his bishop can move along two quite long diagonals. The general rule states that if the two diagonals are 5 squares long there is no need for king support. Actually, the bishop cannot lose unless its own king is an obstacle. This is so because the knight has difficulties in setting up screens, as we will see now. Thus the bishop gets time to choose the best diagonal.

If one diagonal is less than 4 squares long, the attacking king can manoeuvre with his knight to dominate it completely. Then the bishop needs king support but, as we will see in this example, support arrives in time even if the king is far away. The shorter the diagonals, the greater the

winning chances for the knight.

This is an extreme case. White draws here, but loses with his king on a8.

1.Bc5+!

A logical move: the bishop moves to the longest diagonal.

1.Bh4+?, placing the bishop on the shorter diagonal (4 squares long), was losing because the bishop will be ousted before the king can arrive. 1...Kg2 2.Kc7 Ne4 (threatening 3...Ng3) 3.Be1 Nc5 4.Kd6 Nd3 5.Bh4 Kh3!. Knight and king control two squares apiece. That is the most they can do, but now the bishop has to retreat. This scenario would not be possible on a 5-square diagonal.

1...Ke2 2.Bg1!

A very difficult move that only analysis can justify. The aim is to quickly bring the king via the c7-square, which was prevented tactically here (...Nd5, ...Ne3). For instance: **2.Kc7?** Nd5+ 3.Kd6 Ne3–+. If **2.Kc8?** Nd1! 3.Bg1 Nf2 4.Kd7 (the king is too late) 4...Kf1 5.Bh2 Ng4 6.Bg3 (6.Bd6 Ne3–+) 6...Kg2 7.Bh4 Kh3! 8.Be1 Ne5+ 9.Ke6 Nd3 and king and knight control all 4 squares on the crucial diagonal.

2...Nd1

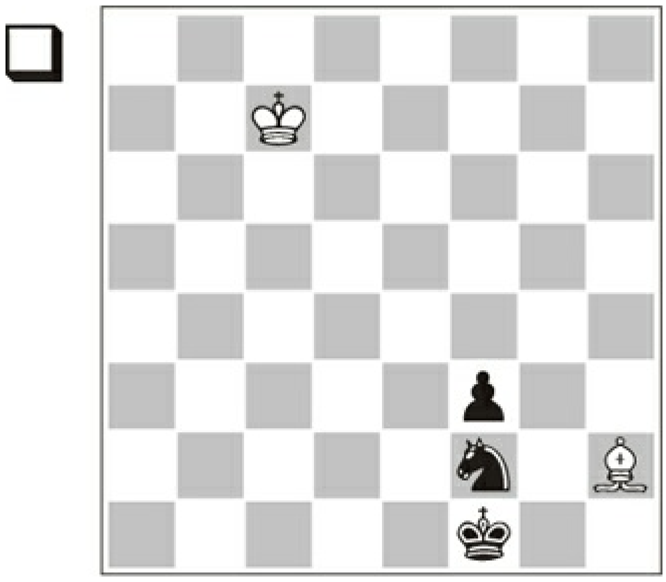
This is necessary in order to drive the white bishop off the long diagonal. The knight heads for the f2-square.

3.Kc7! Nf2 4.Bh2!

Absolutely necessary: now the bishop will choose the best diagonal depending on where the knight jumps. **4.Kd6?** Kf1 5.Bh2 Nd3 6.Bg3 Kg2 7.Bh4 Kh3, again dominating all 4 squares. **4.Kd7?** Kf1 5.Bh2 Ng4 6.Bg3 (6.Bd6 Ne3 7.Bg3 Nf5–+) 6...Kg2 7.Be1 Ne5+! 8.Ke6 Nd3 9.Bh4 Kh3–+ and... I will say it again: White dominates all 4 squares on the stopping diagonal.

4...Kf1

Logical: the king moves to the other side of the pawn. Other moves do not work either, but some care is needed: 4...Ng4 5.Bg1!. The first point! If the knight retreats to g4, the bishop can return to the long diagonal. 4...Nh3 5.Bg3!. The second point! The knight is ill-placed on the h3-square; Black needs one more tempo to dominate all squares on the short diagonal. 5...Nf4 6.Kd6 Nh5 7.Bh4 Ng7 8.Ke5!=. Just in time! White has prevented the lethal blow 8...Nf5.



Position 8.2

5.Be5!

A curious, but at the same time logical and necessary move. The black king has relinquished control of e3, so the bishop gets ready to return to the longer diagonal. Any other move would allow Black to drive the bishop off. For example: 5.Kc6 Ng4 6.Bd6 Ke2 (trying to set up a screen on e3) 7.Bg3 Ne3 followed by ...Nf5, driving the bishop off.

If you have doubts regarding other moves, you can check the variations as an interesting and useful **Exercise**.

5...Ng4 6.Bd4 Ke2 7.Bg1!

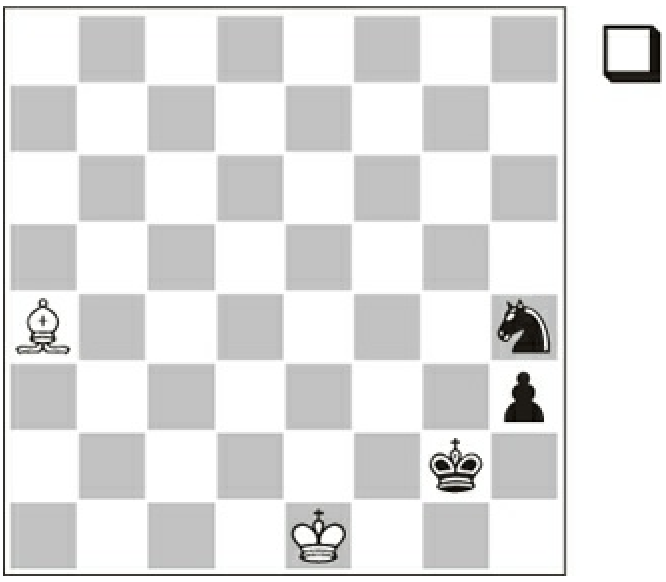
½-½

This wonderful study can help us get some interesting ideas. Perhaps just one example is not enough to consider them conclusive, but the analysis of similar positions proves their validity.

Conclusions:

1. **When the bishop has two stopping diagonals consisting of 5 squares, there is no need of king support.**
2. **When the shorter diagonal consists of 4 squares, the bishop can be driven off the stopping diagonals. This is by no means easy, so the defending king only loses if he is too far away.**
3. **If the shorter diagonal consists of less than 4 squares, winning chances are increased.**

ENDING 38 — The rook's pawn



Position 8.3
Loyd, 1860

Rook's pawns pose more difficulties for the defence. This is logical: one of the stopping diagonals can be very short, or even disappear when the pawn reaches the 7th rank. This case arises quite often, and it contains an unexpected resource which is worth knowing.

Black threatens to place his king on g1 and his knight on g2 to close the only stopping diagonal. White's position looks hopeless; however, there is a hidden resource.

1.Bd7!

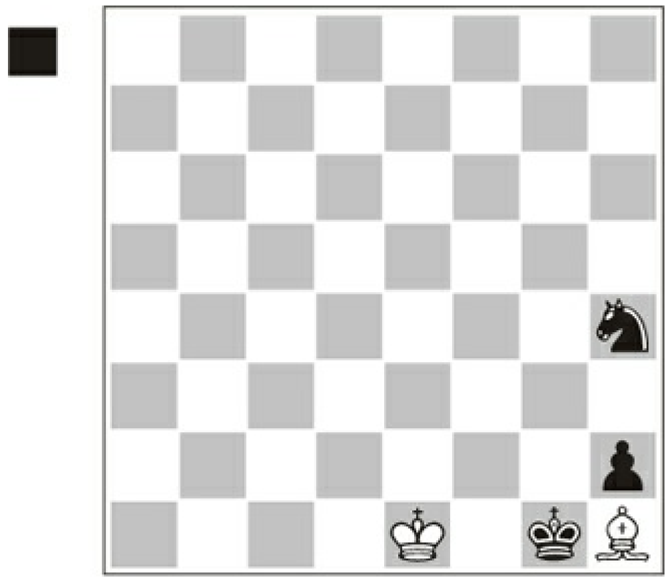
White must force the pawn to the 7th rank to apply the drawing procedure. 1.Bc6+ Kg1 2.Bd5 Ng2++– and the pawn promotes.

1...h2 2.Bc6+ Kg1

2...Nf3+ 3.Ke2=.

3.Bh1!

Only move; the threat was 3...Ng2.



Position 8.4

3...Kxh1

3...Ng2+ 4.Ke2 Nf4+ 5. Ke1= does not work either. Now the black king cannot leave the corner due to the knight's inherent inability to lose time. But where do we move the white king now? There is a rule to simplify our calculation: we must move the king to a square of the same colour as the knight; thus the knight will be able to check the king, but not to control the opposite-coloured square.

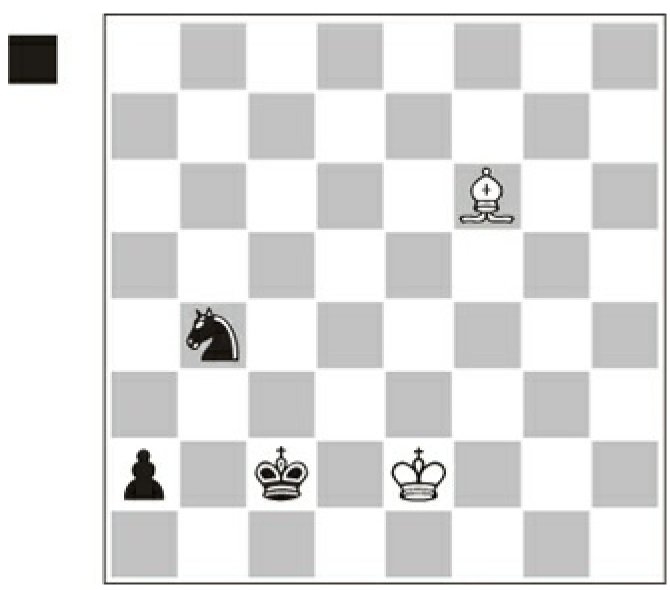
4.Kf2!

Now the black king is trapped. Instead, 4.Kf1? Nf5 5.Kf2 Ng3–+ leads to a quick zugzwang.

4...Nf3 5.Kf1 Nd2+ 6.Kf2 Ne4+ 7.Kf1 ½-½

A brilliant and impressive study by Sam Loyd which can make us wrongly think that this ending is always a draw with a rook's pawn. This is only true when the defending king is close enough. Let us have a look at the following example:

When the defending king is further away



Position 8.5

Stein – Dorfman

USSR, 1970

I have chosen a position from an actual game to show that this endgame is not very well-known despite its theoretical importance. The difference between this position and the previous one is that the defending king is further away. This allows Black to trap the bishop without the white king reaching a drawing position.

1...Nd3 (the threat is 2...Nb2) **2.Ba1** □ **Nb2**

If we compare this position to that in the previous example, they are very similar… but different. The white king is a little further away, and thus his black counterpart can avoid being trapped in the corner.

3.Ke1

3.Ke3 is answered by 3...Na4! 4.Kd4 (4.Ke2 Kc1, reaching the position of the main line after 4th move) 4...Kb1 5.Kd3 □ Nc5+ (5...Kxa1? 6.Kc2=) 6.Kc3 (6.Kd2 Nb3+) 6...Kxa1 and it is easy to see that the white king cannot reach the blocking square of the same colour as the knight: 7.Kc2 Nb3–+.

3...Na4!

The game continued 3...Kb1? 4.Kd2Z and, as shown in Loyd's study, it is a draw. 4...Kxa1 5.Kc1! Nc4 6.Kc2.

4.Ke2 Kc1

Losing a tempo to keep the black pieces on their ideal squares. That is, the king next to b1 and the knight just one step away from b2, but ready to get to b3, delivering some checks on the way. Now the white king has to leave the most flexible square, e2, and all alternatives have drawbacks.

5.Ke1

Other moves are less stubborn: 5.Kd3 Kb1 6.Kd2 (the white king would prefer Kd1) 6...Nb2Z – see main line, 8th move; 5.Ke3 Kb1 6.Kd3 (6.Kd2 Nb2Z) 6...Nc5+! and now we have reached the annotations to the 3rd move.

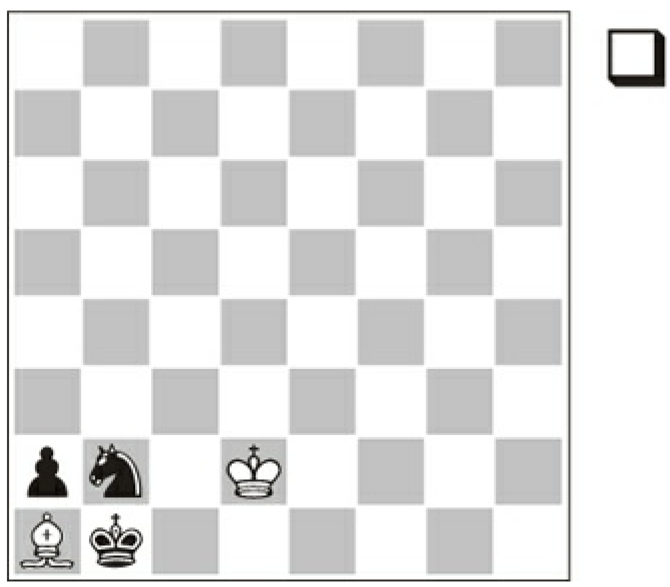
5...Nc5! 6.Ke2

If 6.Bg7, the knight blocks the diagonal with tempo: 6...Nd3+ 7.Ke2 Nb2–+.

6...Kb1

It is essential that the white king cannot reach his best square, d2.

7.Kd1 (7.Bg7 Na4–+) **7...Nd3 8.Kd2 Nb2Z**



Position 8.6
(analysis diagram)

We are back in the continuation mentioned in the comment after Black's third move, only with White to move! Black's play was aimed at reaching this zugzwang position.

9.Kc3 Kxa1 10.Kc2 Nd3–+

> **Conclusion: With a rook's pawn, there are reasonable winning chances but, if the defending king is near, the strong side must not rush to drive the bishop out of the corner.**

Section 2. Bishop + Pawn vs. Knight

If the knight is the weaker side, losing chances increase. That is consistent with the greater mobility of a bishop over a knight on an open board. We can distinguish three scenarios:

First scenario: The defending king manages to stand in front of the pawn on a square opposite to the bishop's colour. Then it is an ironclad draw unless the knight is trapped. There is no need for examples of this.

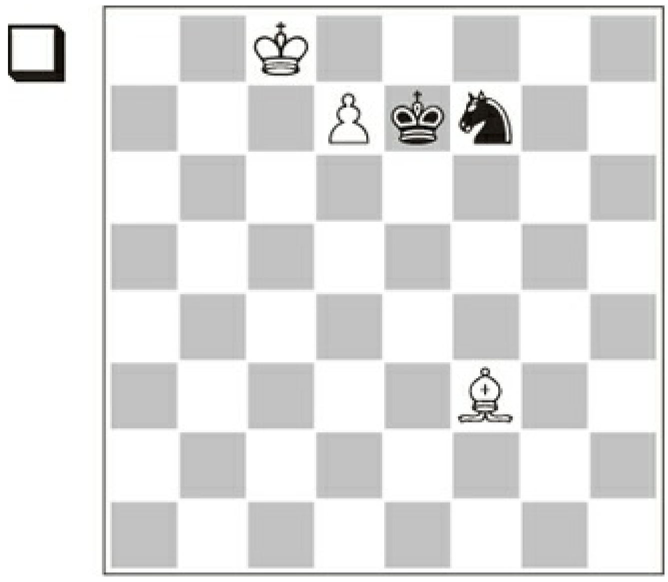
If the king cannot get in front of the pawn, the blockade must be performed by the knight. King support is needed because, if the king is far away, the knight will be ousted from its blockading position (unless there is a chance of a knight fork).

Second scenario: Both king and knight control a square opposite from the colour of the bishop to stop the pawn. Apparently, this is a safe set-up for the defending side, but there are many zugzwang positions with the pawn on the 7th rank and, occasionally, on the 6th rank.

Third scenario: The knight controls one square with some support from the king, but this blockade is not solid. Here the result depends on the stability of the knight, which can be ousted by – sometimes complicated – tactics. Usually the attacking side has to force a zugzwang.

ENDING 39	The pawn is on the 7th rank

Zugzwang, stalemate or perpetual check



Position 8.7

Apparently, Black can successfully defend this position because he can control the d8-square with both king and knight. However, this is not true. Actually, Black's best drawing chances involve the threat of a check on d6.

1.Kc7!

Parrying the drawing threat.

An immediate attack on the knight, 1.Bd5?, would be a big mistake: 1...Nd6+ 2.Kc7 Ne8+ 3.Kc8 Nd6+=.

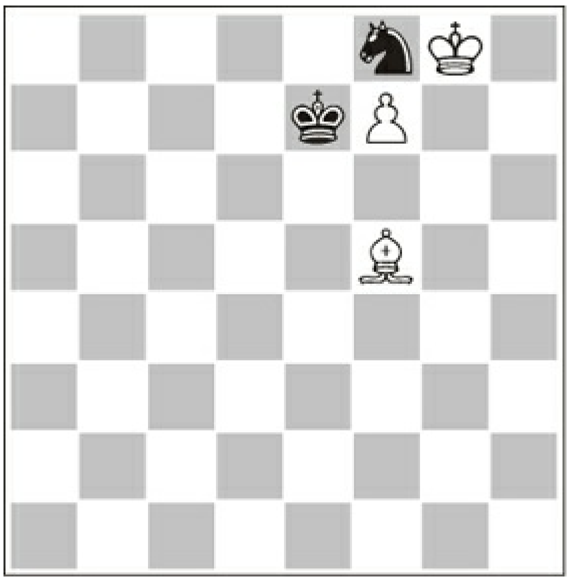
Apart from the text move, only 1.Bc6! wins, preventing checks on e8 and b5.

1...Nd8 2.Bd5+–

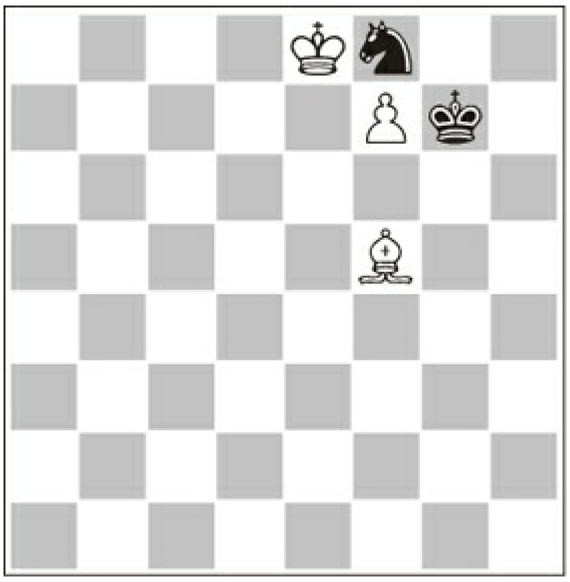
Zugzwang leads to the immediate loss of the knight.

Recommended **Exercise:** look carefully at the following series about knight blockade and check their statements. This will help you fix your knowledge of these positions.

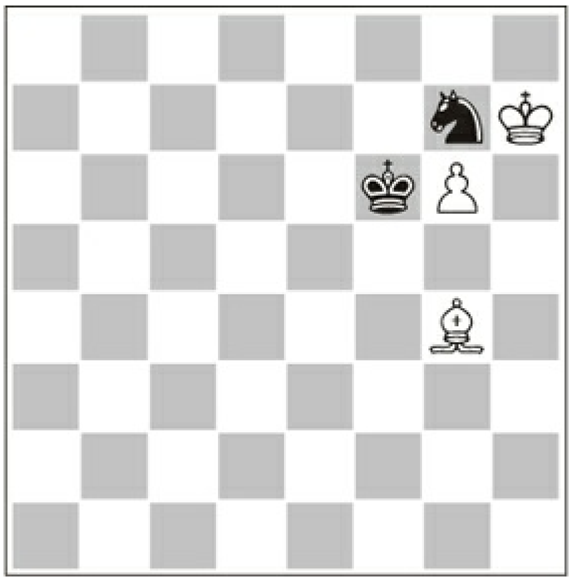
Knight blockades series



White wins, no matter who moves



Draw, no matter who moves



White wins, no matter who moves

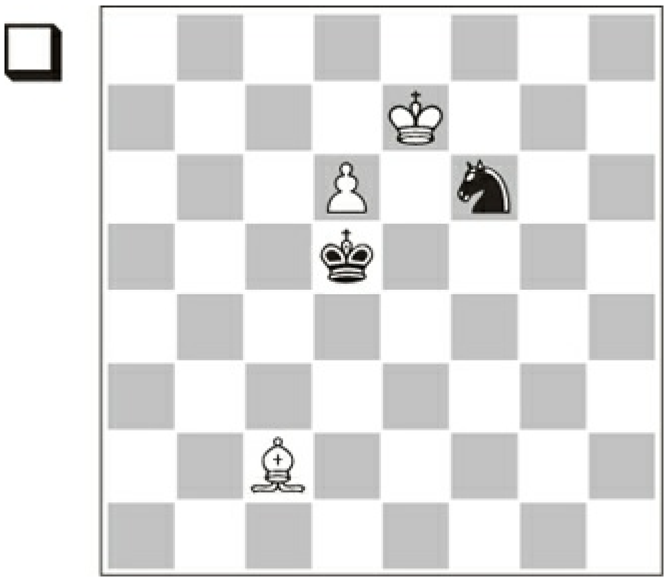
Conclusion: When the pawn is on the 7th rank, passive defence usually loses due to zugzwang. The defending side has two possible drawing resources:

1. **Perpetual check with the knight.**
2. **Stalemate, when the pawn is close to the edge of the board.**

When the pawn is less advanced, zugzwang is impossible if the defending king and knight control the square in front of the pawn (the opposite colour to the bishop). Then a type of position arises which is interesting only when the position of the knight is unstable. Here zugzwang can help the analysis, but it is impossible to set a general rule. Each case requires calculation.

Therefore, we present just one example. It can be a guide for further study, but not a source of theoretical conclusions.

ENDING 40 — Unstable position of the controlling knight



Position 8.7

V. Bron, 1955

1.Bb3+ Kc5

If 1…Ke5 2.Be6 and zugzwang.

2.Ba2

Other bishop moves also win; instead, 2.Ke6? allows the knight to relocate, which would make zugzwang impossible. 2…Nh7! 3.Ke7 Nf8= and the black king just moves around the pawn. 4.Bc2 Kc6 and now:

A) 5.Bb1 Kd5! (5…Kc5? 6.Be4 zugzwang) 6.Bd3 Kc6!=;

B) 5.Ba4+ 5…Kc5 6.Be8 Kd5 7.Bf7+ Kc6 8.Bh5 Kc5!= (not 8…Kd5? 9.Bf3+ Ke5 10.Be4Z+–).

2...Kc6

2…Ng4 3.Bb1 Nf6 4.Be4+– Ng8+ 5.Kd7 Nf6+ 6.Ke6 as in the final position.

3.Ke6 Nh7

3…Kc5 4.Bb1 (or 4.Bd5 Nh7 5.Ke7).

4.Bd5+ Kc5 5.Ke7 Nf6

5…Nf8 6.Be4Z+–; another zugzwang position, also winning.

6.Bf3 Ng8+ 7.Ke6 Nf6 8.Be4!+–

Zugzwang!

In this type of position, the only useful conclusion is that no theoretical rules can be established. Accurate calculation is essential, and searching zugzwang positions is very useful.

9. Opposite-coloured bishops: Bishop + 2 pawns vs. Bishop

This chapter and the chapter on rook endings are the most important ones in the book. Opposite-coloured bishop endings occur quite often in practical play. This is probably due to the fact that the player with an inferior position tends to look for salvation in allegedly drawn endings. However, the reasons to recommend the study of these endings go beyond their regular occurrence:

A. First, they allow a deep analysis; therefore, their theoretical study is well developed.
B. They require a rather particular technique, which has to be learnt. We can say that, in many positions, intuition has little to do with the correct decision. Of course, this is a subjective idea, but it implies that at least it is difficult to find our way in these endings without some basic knowledge.
C. Since defensive resources are well known and there is hardly any possibility of a counterattack, we can develop our plans with clarity and depth. This allows us to take good simplification decisions and turns these endings into good fields for training.
D. Last, the study of theoretical positions will show us some ideas that can be applied to endings with more pawns on the board.

Summarising: if you skip this chapter, or do not pay much attention to it, you will make a big mistake. This chapter will reward you with a lot of points in tournament play.

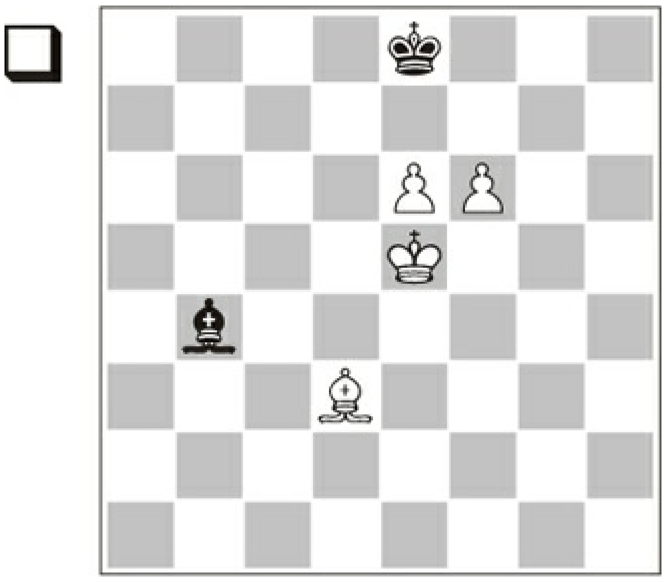
We will start directly with positions where one side is two pawns up. With just one pawn, endings are very simple. Everything depends on the defending bishop's success in controlling the pawn's path.

We will divide our study material into positions with separated pawns and positions with connected pawns. The case with doubled pawns is just too obvious: when the defending king and bishop control a square in front of the pawns, it is a draw; if they fail, the first pawn will win the bishop and the second one will promote.

Section 1. Connected pawns

In contrast with any other kind of ending, where two connected pawns are overwhelming, drawing chances are higher here because the defending side can block the pawns or sacrifice his bishop for them. Let us begin with the study of advanced pawns, and then we will move them back down the board.

ENDING 41	Pawns on the 6th rank



Position 9.1

On the 6th rank, the pawns usually win. The winning procedure is quite easy, but it is worth noting in order to become familiar with the required technique.

The white pawns cannot advance: not to e7 because then Black would give up his bishop for the two pawns, and not to f7 because then both pawns would be blockaded on squares of the same colour as the white bishop. This blockade is impossible to lift and is one of the trademarks of opposite-coloured bishop endings. So White cannot think of advancing the pawns, and instead they have to stay on the 6th rank, until the right moment comes to move e6-e7.

The plan consists of two clear stages:

1) A bishop check to force the enemy king to define his position…

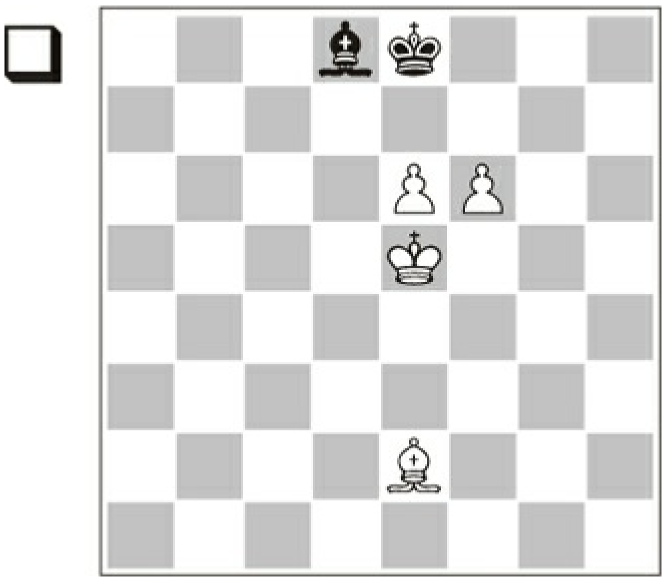
1.Bb5+ Kd8 (if 1…Kf8, White carries out the same plan on the other flank: 2.Kd5 Ba3 3.Kc6 Bb4 4.Kd7 Bc5 5.e7+) **2.Kf5,** and:

2) The attacking king outflanks his opponent.

This plan would not be possible with the black king on f8 and the black bishop on d8, but then White could lose one tempo and Black would be in zugzwang. We will see this in our next example.

2...Bc5 3.Kg6 Bb4 4.Kf7 Bc5 5.e7+ 1-0

The bishop in front of the pawns



Position 9.2

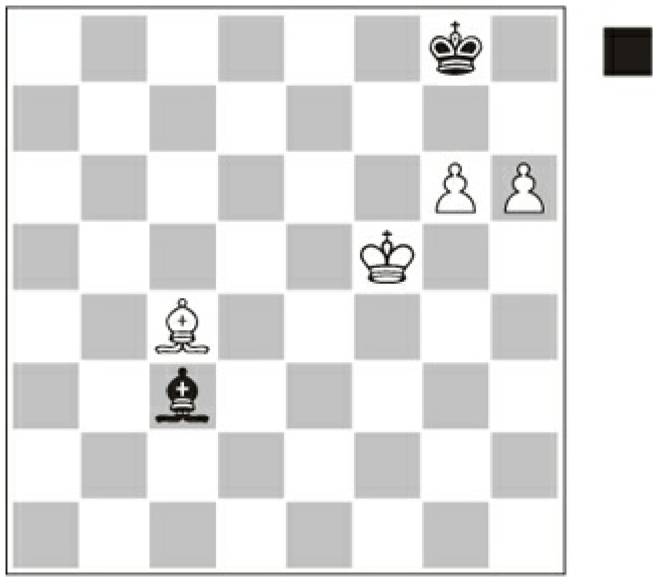
As we will see, this is a useful defensive resource when the pawns are on the 5th rank, due to the attack on the f-pawn. However, it is not enough to draw here, due to zugzwang.

1.Bb5+ Kf8 2.Kf5!

Zugzwang; the next move, the pawn will move to e7, because one of the black pieces must surrender control of that square.

Can we then conclude that two connected 6th-rank pawns always win? Not yet. There is one exception:

Rook's and knight's pawns



Position 9.3

This is the only exception with two 6th-rank connected pawns. Let us see the characteristics: knight's and rook's pawns vs. defending bishop on the long diagonal.

1...Kf8!

This time we don't have the usual stalemate themes that frequently arise in endings with rook's and knight's pawns. The black king moves here because outflanking on the other side is not possible. In case of 1...Kh8?? White wins in the usual fashion: 2.Ke6 Bb2 3.Kf7+–.

2.Ke6 Bb2

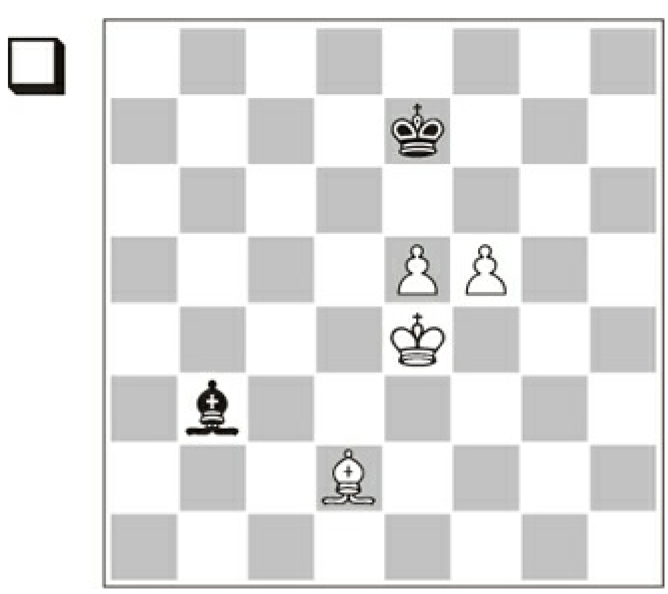
Black just has to wait. Therefore, it is a draw.

> **Conclusion: Two 6th-rank connected pawns always win, except when they are rook's and knight's pawns and the defending bishop waits on the long diagonal.**

ENDING 42	Pawns on 5th rank or behind

The evaluation of the endgame changes if the pawns are further from promotion. Then the defending side can draw with the correct defensive set-up.

The winning procedure



Position 9.4

In the diagram position, the black bishop is on the wrong diagonal. Although the bishop controls

the e6-square, it cannot prevent the following manoeuvre, very similar to that with the 6th-rank pawns. In our next example we will see the correct defensive procedure.

1.Bg5+!

The first stage is a check to force the black king to choose which side to move to. There are two possible checks and there is a big difference between them. The text move is the right one: White is going to push his e-pawn, and when this happens the bishop has to control both squares in front of the pawns.

1.Bb4+?! is the wrong choice; if White does not amend his plan, the game will be drawn. 1…Kf7! 2.Kd4? (White could still get back to the right plan: 2.Be1! and Bh4) 2…Bc2!. Black must seize this opportunity to disrupt the pawns, now that they are not ready to move forward. 3.e6+ (3.f6 Ke6 with an impregnable blockade) 3…Kf6 (now the white pawns are under attack) 4.e7 Kf7 5.Ke5 Ba4 and the black pieces cannot be driven off their blockading positions.

1...Kd7

1…Kf7 2.Kd4 (the king goes for a left-hand outflanking to secure the e6-square from d6) 2…Ba2 (Black has to wait; if 2…Bc2?! 3.e6+! and the black king cannot get in between the pawns. White has prevented this possibility with 1.Bg5+. 3…Ke8 4.f6+–) 3.Kc5 Bb3 4.Kd6 Ba2 5.e6+ Ke8 6.f6+–.

2.Kf4

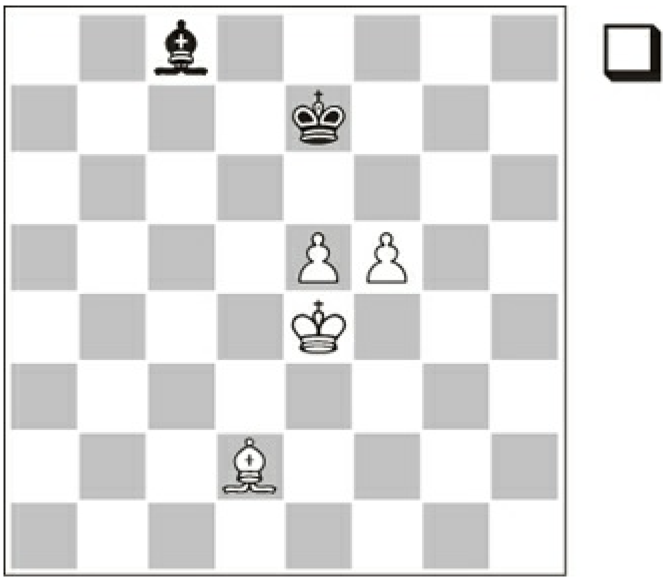
Now the white king outflanks on the other side, in order to secure the e6-square from f6.

2...Ba2 3.Bh4 Bf7 4.Kg5 Ke7 5.Kh6+ Kd7 6.Kg7 Bd5 7.Kf6 Bb3 8.e6+ Ke8 9.Ke5

Followed by f5-f6. We already know that two 6th-rank pawns win.

The defensive procedure

In Position 9.5, the right position for the defending bishop is given. By attacking one of the stronger side's pawns, the mobility of the latter's king is limited and outflanking manoeuvres are not possible.



Position 9.5

From c8 (or d7) the bishop attacks the f5 pawn, thus hindering outflanking manoeuvres, and allows a sacrifice against an eventual e5-e6.

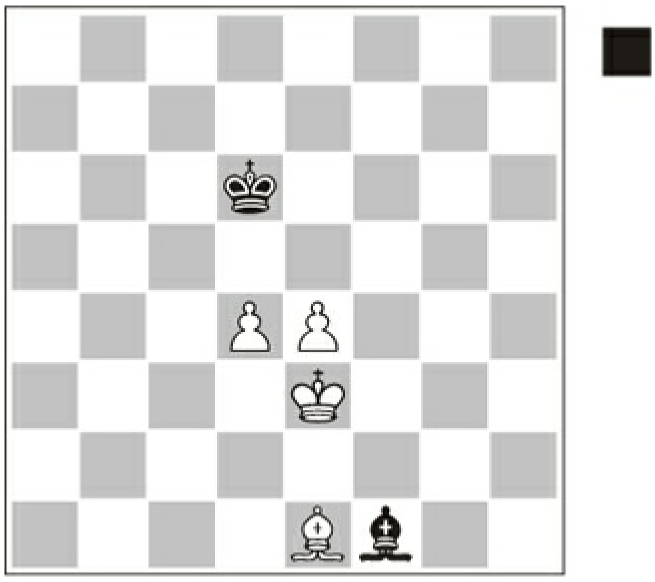
1.Bg5+ Kf7! Keeping a double eye on e6. **2.Kf4 Bd7**

White cannot make progress. Therefore, it is a draw.

We have thus learnt a very important defensive resource, that we can adopt against pawns on the 5th rank, or even further back. Note that the bishop halts the white pawns, but sometimes its sacrifice is forced. This can be important when there are more pawns on the board.

Pawns on the 4th rank

Here the drawing procedure is the same as in positions with pawns on the 5th rank: the defending king stands in front of the pawns while his bishop also stands in front of them, attacking one pawn and preventing the other from moving forward.



Position 9.6

Tarrasch, 1921

Here the defender has more options: he can reach the correct defensive position when the pawns are on the 4th rank, or on the 5th. However, sometimes this is not possible, and in some cases, like this, it *is* possible but the defender has to be careful.

1…Bc4!

Only move. Black cannot reach the defensive set-up against the pawns on 4th rank, because the bishop should be on c6 or b7 for that. So Black has to be ready to build this defensive set-up when the pawns reach the 5th rank. Then, the key squares for the bishop are f7 and g8. Only the text move achieves that goal. If 1…Bb5? 2.Bb4+! and the black king becomes an obstacle for his own bishop: 2…Kd7 3.d5+–.

2.Bg3+ Kc6!

The advance d4-d5 has to be hindered until the black bishop gets to the f7-square. Let us check that all alternatives fail:

2…Kd7? 3.d5+–; **2…Ke6?** 3.Bf4! (other bishop moves also win, but not 3.Kd2? Bb5! 4.d5+ Ke7 5.Ke3 Be8! followed by …Bf7, reaching the ideal defensive position) 3…Bb3 (3…Ba2 4.Kd2) 4.Kd3 Ba2 5.Kc3 followed by Kb4, Kc5 and d4-d5.

3.Kf4 Bf7 4.Ke5 Kd7 5.d5 Bg6

Attacking the pawn is not necessary, but it is the simplest way to hinder White's manoeuvres.

6.Kd4 Bh7 7.e5 Bg8

And finally Black has reached the desired defensive set-up.

Conclusions:

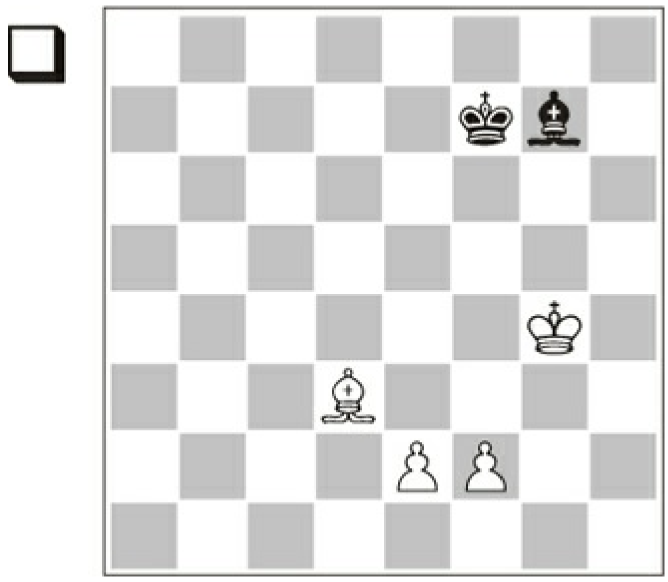
1. **When the two pawns are on the 5th rank or further back, if the defending side reaches the right defensive set-up, the ending is drawn.**
2. **That set-up involves placing the king in front of the pawns and the bishop in such a position where it can prevent the advance of one of the pawns while simultaneously attacking the other.**
3. **The less advanced the pawns are, the more chances for the defending side to reach the desired set-up.**

ENDING 43 — A very special pair of pawns. The cage

In our last example we saw that setting up the defence can be difficult. Also, we noticed that, when the pawns stand on different ranks and on squares of the same colour as the enemy bishop (avoiding blockade), the defending side may be in trouble.

However, few players know that there is a pair of pawns that can be really troublesome if not well

controlled from the very beginning.



Position 9.7

Despite its low incidence, this position is worth analysing due to its exceptional nature, which can help us find new ideas. White has a forced win despite the fact that his pawns are still on the 2nd rank. How is this possible?

First, it is important to note that this pair of pawns e-f (or c-d), standing on f4 and e5, can leave a bishop on the long diagonal out of play. If we leave the pawns on those same squares but the bishops switch colours, almost any position would be drawn.

Second, the black pieces are ill-placed and have no time (actually, they lack one tempo) to reach the ideal defensive set-up against 4th-rank pawns, that is, king on f6 and bishop on d6-c7-b8.

Once the attempt to get that set-up against 4th-rank pawns fails, Black has to get ready to adopt it against 5th-rank pawns. That is indeed possible, but we will see what happens then.

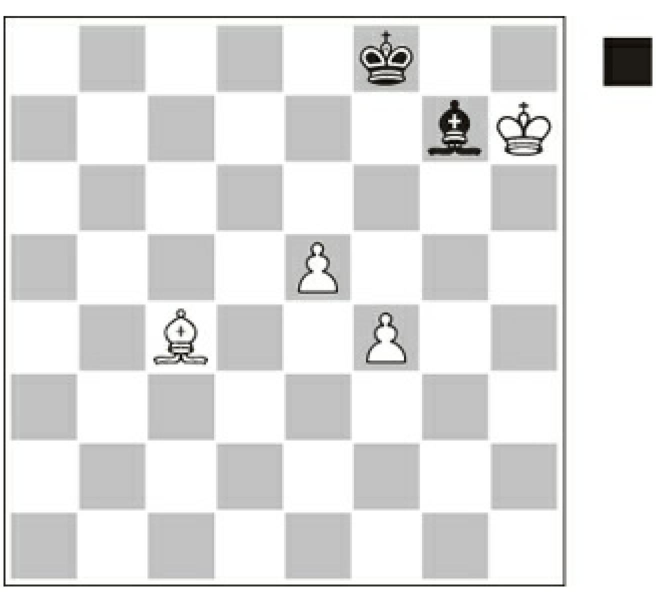
1.f4 Bf8 2.e4 Ke7 (2…Bd6 3.e5) **3.Bc4 Bg7 4.e5**

Black has reached his defensive set-up against 5th-rank pawns, but White is not going to push his pawns yet. Note the black bishop's awkward position. This pawn structure always wins, no matter who moves or where the bishops are. White just needs his king defending the pawns. They have built a sort of cage that restricts dramatically the bishop's mobility; on the other hand, the bishop must stay inside the cage, because otherwise it will be impossible to reach the right defensive set-up against pawns on the 5th rank.

4…Bh6

The most stubborn; Black tries to stop the white king.

5.Bb3Z (5.f5?? Bg7=) **5…Bg7** (5…Kf8 6.f5+–) **6.Kg5 Bh8 7.Kg6 Kf8 8.Kh7 Bg7 9.Bc4Z**



Position 9.8
(analysis diagram)

A vivid image. The bishop is lost.

Section 2. Separated pawns. The three drawing scenarios

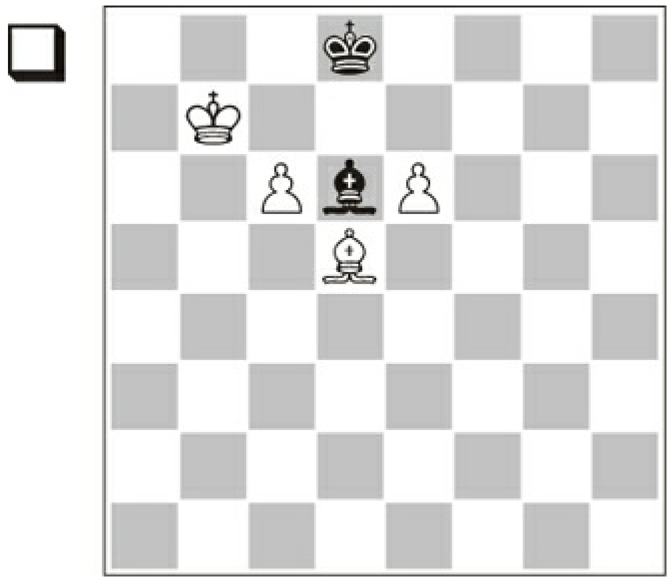
The analytical labour carried on by Jonathan Speelman in his book *Analysing the Endgame*, and André Chéron, has been especially useful for the elaboration of this section. This ending is more frequent and complex than the previous one. There is a very famous rule: **the more separated the pawns are, the greater the winning chances.** However, it is very difficult to systematise and remember all cases.

With our next examples, I will try to give you a complete guide to find your way through all these scenarios, as long as we pay attention to the peculiarities of the position.

First we will deal with the three clear drawn cases. Then, if we have a position that does not fit in these three cases, we know that a more precise evaluation is needed, as well as more particular rules that we will see in the second part.

The **first draw scenario** is obvious, but not automatic: it appears when one of the two pawns is a wrong rook's pawn. Then, no matter how separated or how advanced the pawns are, the result just depends on the success or failure of the defending side in bringing his king to the corner and giving up his bishop for the other pawn. The other two scenarios are shown in the following diagrams.

ENDING 44	Pawns separated by just one file



Position 9.9

The defensive procedure is simple: the king just waits, while the bishop moves back and forth controlling the pawn which is supported by the strong king.

1.Bb3 Bf4 (or Be5, or Bg3, or Bh2) **2.Kb6**

2.c7+ Bxc7 3.e7+ Kxe7 4.Kxc7= wins the bishop, but not the game. Of course, it would be a different matter if there were more pawns on the board.

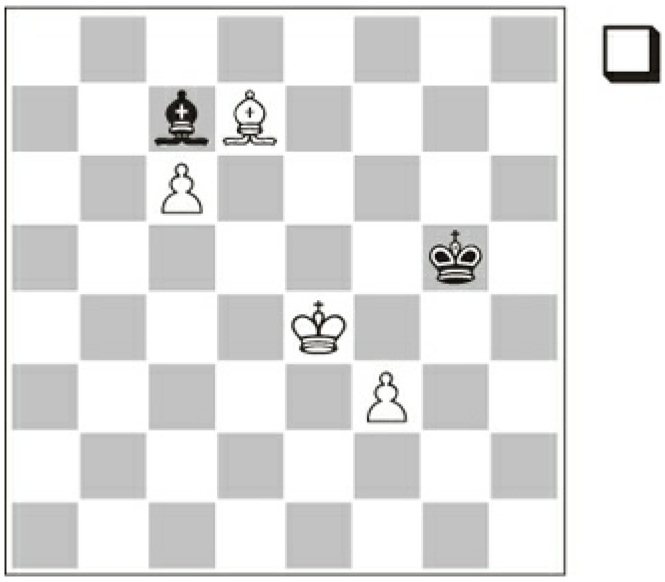
2...Bd6 3.Kb5 Bc7 4.Kc4 Bd6 5.Kd5 Bc7 6.Ke4 Bd6 7.Kf5 Bc7 8.Kf6 Bd6 9.Kf7 Bb4!

Now go to the other diagonal! It is an ironclad draw.

Second draw scenario: If the pawns are separated by just one file, once the defending king and bishop occupy the right blockade positions the ending is always drawn.

ENDING 45	Controlling both pawns along the same diagonal

Here the defensive procedure is simple too:



Position 9.10
Averbakh, 1972

1.Kd5
It is worth pointing out that, if the black pieces switched positions, White would easily win by means of f3-f4 and Kf5. But here any outflanking try is easily neutralised.
1...Kf6!
The white king will not make it to e6.
2.Kc5 Ke7 3.Kb5 Bf4 4.Kb6 Kd8 ½-½

To make sure this defensive procedure works, we just need to check the coordination between king and bishop and their ability to simultaneously control the pawns' paths despite support from the stronger side's king.

Third draw scenario: If the defending bishop can restrain both pawns along the same diagonal with support from the king, the ending is drawn, no matter the distance between the pawns.

Section 3. Pawns separated by two files

The theoretical knowledge displayed so far constitutes a good basis to perform reasonably well in an opposite-coloured bishop ending, and even perhaps to play accurately in the positions just shown. However, some extra knowledge would give us more confidence and increase our resources to face endings with more pawns on the board. As we will see, some techniques are impressive.

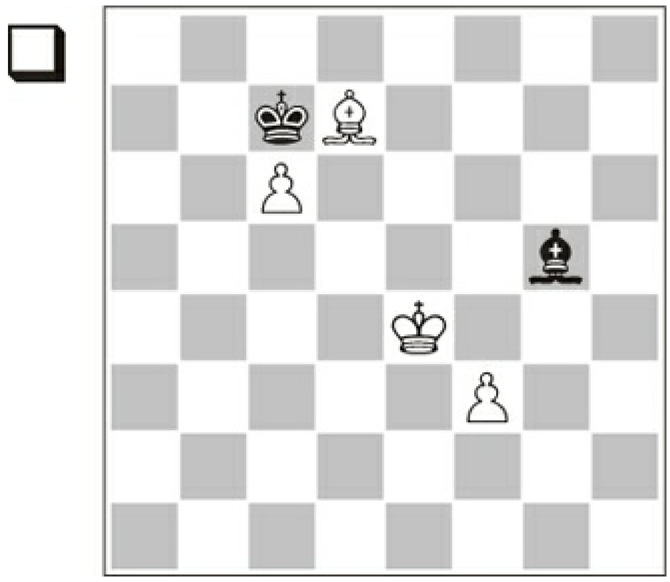
Of course, from now onwards, we will deal with positions which do not belong to those three drawing scenarios we have just analysed. We have noted that the more separated the pawns are, the greater the winning chances.
We will divide our study into different sections, according to the degree of separation between the pawns: two files in this section and three in the next one.

ENDING 46	The winning procedure

All endings in this section are won in the same fashion. Therefore, we will use the simplest case to illustrate the technique.
It can be stated as follows: **While the bishop defends the pawns, the king will try to penetrate to support the pawn which is blocked by the defending bishop.** Drawing chances are thus based on

two resources: stopping the invading king or supporting the bishop's blockade with the king.

We can take Position 9.10 and switch the positions of the black pieces to illustrate one of the winning schemes.



Position 9.11

1.f4

Crossing the diagonal h2-b8, along which the black bishop could stop both pawns. Here, Black's blockade can be broken. Other moves, such as Kf5, were also winning. A typical feature of opposite-coloured bishops is that the result does not depend on tempi.

1...Bh4 2.Kd5

Now comes the second stage of the plan, the most important one in these situations: the king tries to penetrate in order to support his f-pawn, which is blocked by the black bishop.

2...Bd8 3.Ke6

The king goes to support an eventual advance of his f-pawn.

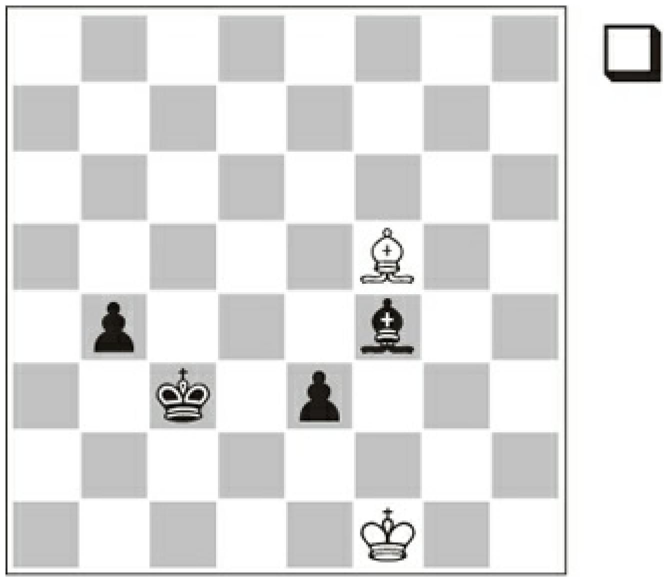
3...Bh4 4.f5 Kd8 5.f6 Bg5 6.Kf5 Bh6 7.Kg6 Bf8 8.Kf7 Bh6 9.Kg8 1-0

Now the king secures the pawn's path to f8. To come and stop it, the black pieces have to allow the other pawn to move freely.

Conclusion: Two bishop's pawns (c- and f-files) win unless the position belongs to the third draw scenario.

ENDING 47	Knight's and central pawn

The defending bishop has control over the promotion square



Position 9.12

Berger – Kotlerman

Arkhangelsk 1948

The last example may lead us to think that two pawns separated by two files always win when the defending bishop cannot control them along the same diagonal. However, this is not so. When one of them is a knight's or rook's pawn, the edge of the board is close, and then it is more difficult for the king to support promotion. This ending occurs quite frequently in tournament practice and results can be surprising.

1.Ke2!

The black king must be cut off from his central pawn. As we will see, the knight's pawn is less of a threat.

1...b3

Since outflanking does not work, this is the only plan.

2.Kd1!

It is necessary to control the c1-square, to restrict the black king's mobility even more. **2.Bg6?** Kb2 3.Bf7 Kc2 4.Bg6+ Kc1–+ and the b-pawn promotes and wins the bishop; **2.Bh7?** Kb2 3.Kd1 and now it is too late: 3...Ka1!–+.

2...Kb4 3.Bh7

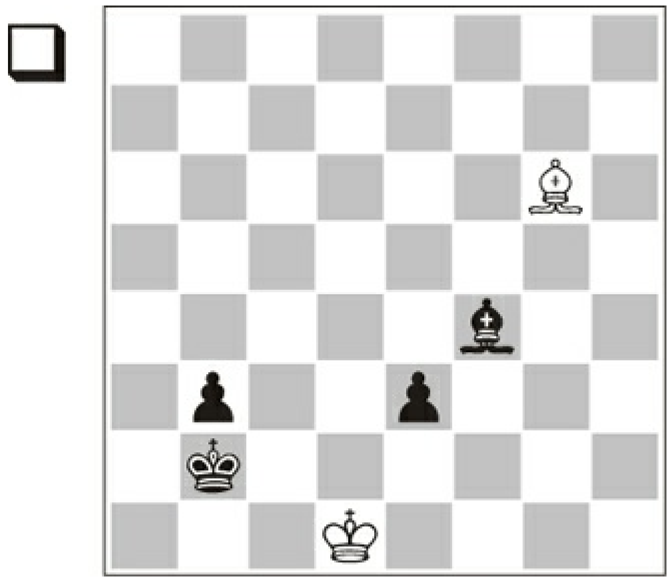
The white bishop just waits until the black king threatens to occupy the a1-square.

3...Ka3 4.Bg6 Kb2

If **4...b2** threatening 5...Ka2, then 5.Bb1! Kb3 6.Ke2=, setting up a fortress where Black cannot penetrate.

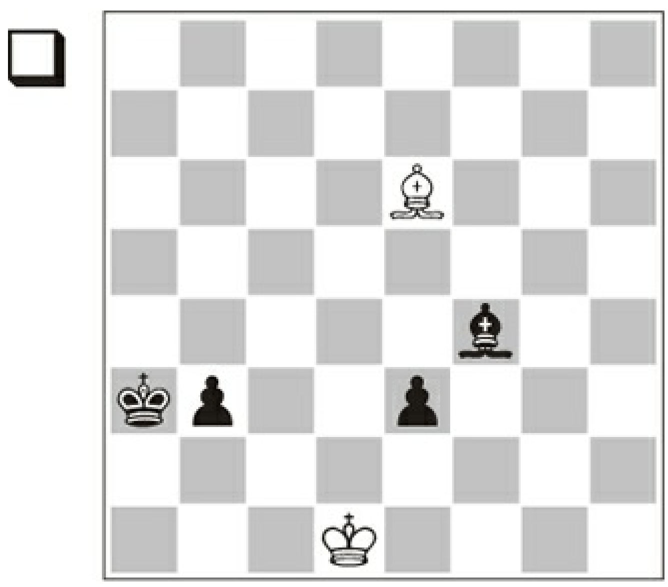
This position illustrates very clearly the peculiarities of the knight's pawn – the black king cannot get round the left hand side of the pawn, to relieve the blockade, since the edge of the board intervenes.

If **4...Ka2** 5.Bf7! and the b-pawn is momentarily pinned, but this position requires special attention: I have seen many players throw away half points in the positions shown in the next two diagrams.



Position 9.13
(analysis diagram)

5.Bf7!
White has to attack the b-pawn now to prevent the black king from securing its advance from a1. 5.Bh7?? Ka1!–+ and 6…b2, winning.
5...Ka2 6.Be6 Ka3
Now the threat is …b2, forcing 8.Bf5, which would allow 8…Ka2 and 9…b2-b1. We have reached another critical moment.



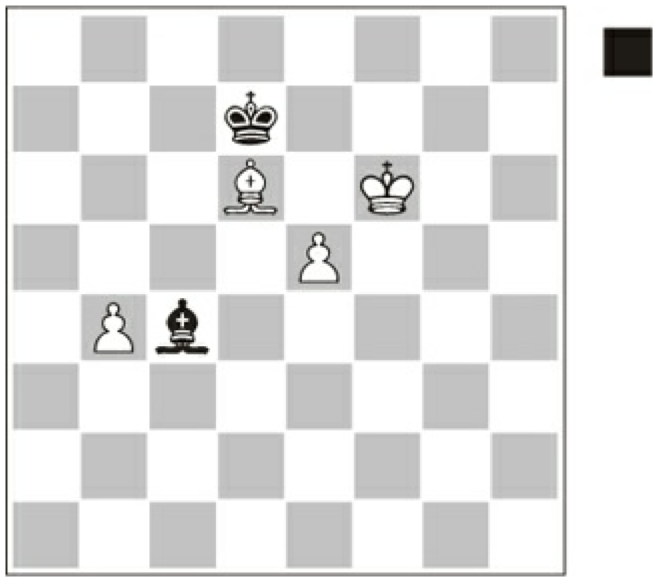
Position 9.14
(analysis diagram)

7.Bf5!
Again, keeping an eye on Black's threats and preventing them.
7...b2 8.Bb1! ½-½
I think that this example, taken from an actual game, shows the problems of knight's pawns in a convincing way.

Conclusion:
When the pawns are separated by two files and one is a knight's pawn, the ending is drawn if the defending king controls the central pawn and his bishop controls the promotion square of the other.

The ending is usually drawn even if the bishop cannot control the promotion square, but here there are some exceptions, as we will see in the next examples.

The attacking bishop has control over the promotion square



Position 9.15

Chéron, 1957

This position was analysed by Chéron and shows that there are greater winning chances when the defending bishop does not control the promotion square of the knight's pawn. The situation is quite favourable for White, whose king has reached the f6-square. However, the road to victory is still quite lengthy.

1...Bf1 2.Bc5

The bishop has to leave the d6-square before the b-pawn moves, because then it will not be possible anymore.

2...Bc4 3.Be3Z

Zugzwang. Black has to allow the advance of one of the white pawns. It does not matter which one moves first. Instead, it is important to note that, with the black king on e6 preventing the advance of the pawns, the ending would be drawn.

3...Bb5

3...Bd5 is shorter, and probably more instructive: 4.b5 Bc4 5.b6 Bd5 6.Bd2! Decisive. The bishop must go to the a5-square to win. With the white bishop on d6, Black would play ...Kc6 and, if Bc7, ...Kd7 would prevent White's manoeuvre. 6...Kc6 7.Ba5! Kd7. Apparently the white pawns are controlled but... 8.e6+!+–. Here you can see the importance of placing the bishop on a5.

4.e6+ Ke8 5.Ke5 (threatening 6.Kd6) **5...Ke7 6.Bg5+ Ke8 7.Kd6 Bc4 8.e7 Bd3 9.Kc5 Kd7 10.b5 Be2 11.b6 Bf3 12.Kd4**

Once both pawns have reached their limit, the white king tries to make it to f8 or d6.

12...Ke8 13.Ke5

A critical moment: the white king threatens to occupy d6.

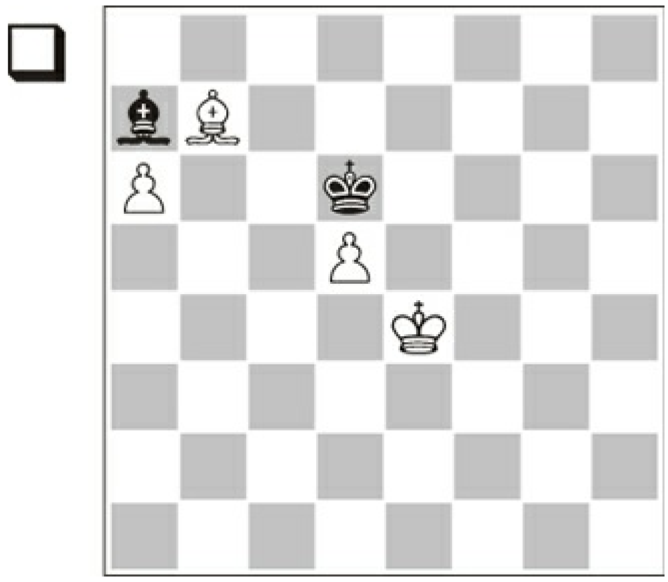
13...Kd7 14.Kf6 Bh5 (14...Ke8 15.Ke6+–) **15.Kg7 Kc6 16.Be3 Kd7 17.Kf8 Bg6 18.Bd2!** (similar to the previous note) **18...Kc6 19.Ba5 Kd7 20.b7+–**

Trying to draw definite conclusions from this ending is rather optimistic. We can only be sure that:
Winning chances are greater when the promotion square for the knight's pawn is the same colour as the attacking bishop. From a practical point of view, it is enough to note the ideas and manoeuvres.

ENDING 48 — Central and rook's pawns

There is still one more case with pawns separated by two files: where one of them is a rook's pawn. With less room for the defender to cover, just a little care is enough to draw.

The goal for the attacking king is the b7-square. There is no space on the left side, and the space between the pawns is too narrow; therefore, there is just one route available.



Position 9.16

1.Kf5 Ke7!

Black is advised not to allow the white king to reach e8, though defence is possible even in that case. You can check it as an **Exercise** to train the technique required for these endings.

2.Ke5 Bb8+ 3.Kd4 Ba7+ 4.Kc4 Kd6

It is plain to see that the white king cannot go further.

When the rook's pawn is further back, there are some more chances for the white king to reach b7, but not enough if the defender is on guard.

Conclusion: With a- and d-pawns (or h- and e-) it is impossible to win against a normal defensive set-up.

Section 4. Pawns separated by three files

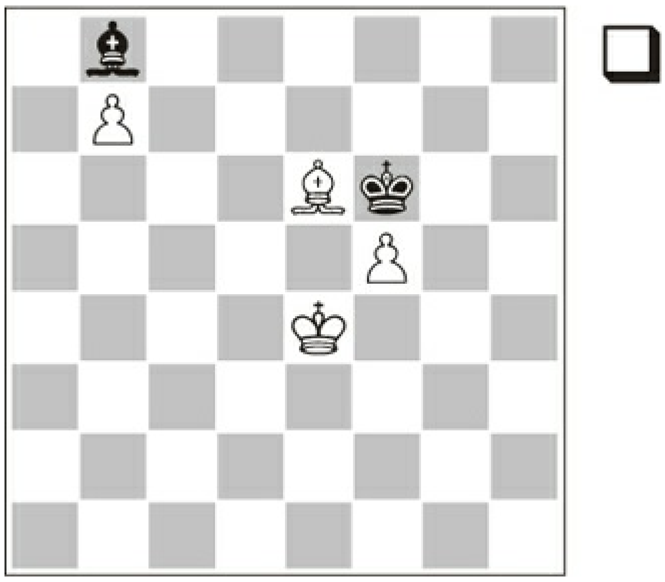
When the pawns are separated by three files, winning chances are relatively greater. This may seem slightly ironic; so far we have seen that the attacking side has manoeuvring difficulties in positions with knight's pawns, and very likely with rook's pawns. However, the fact is that, if the pawns are separated by three files, one of them must be a knight's or a rook's pawn, thus restricting the stronger king's possibilities.

Curiously enough, with a rook's pawn (not a wrong rook's pawn), the stronger side can always lift the blockade and win; however, with a knight's pawn, there are many drawn positions due to impregnable blockades.

ENDING 49	Bishop's and knight's pawns

Outflanking on the edge

Let us start with knight's and bishop's pawns. The worst case scenario for the stronger side involves a very advanced knight's pawn, because then it obstructs its own king. Anyway, when both pawns are on the 7th rank, it is a win (the analysis is simple). When the knight's pawn is on the 7th rank and the other one is on the 5th rank, an impregnable blockade can be set up, as we will see in our next example.



Position 9.17

Speelman, 1981

1.Kf3

Both black pieces are playing the right roles: the king stops the bishop's pawn and the bishop stops the knight's pawn. Even so, Black cannot allow outflanking on the edge of the board.

1...Kg5!

The white king must be stopped. 1...Bc7? would lose, but this variation is much more interesting than the main line. 2.Kg4 Bb8 3.Kh5 Bf4 4.Bc8Z (the first zugzwang) 4...Bb8 (4...Kg7 fails to a tactical detail: 5.Kg4 Bb8 6.Kg5 Be5 7.f6+! Bxf6+ 8.Kf5+–) 5.Kh6 Bf4+ 6.Kh7 Bb8 7.Kg8 Bd6 8.Be6Z (the second zugzwang) 8...Bb8 9.Kf8 Bd6+ 10.Ke8 Be5 11.Kd7 Bf4 12.Kc8+–.

An amazing race: the white king has travelled all along the edge of the board. Actually, this is a rather frequent resource. We will call it 'outflanking on the edge of the board'. It is a recurrent manoeuvre in these endings.

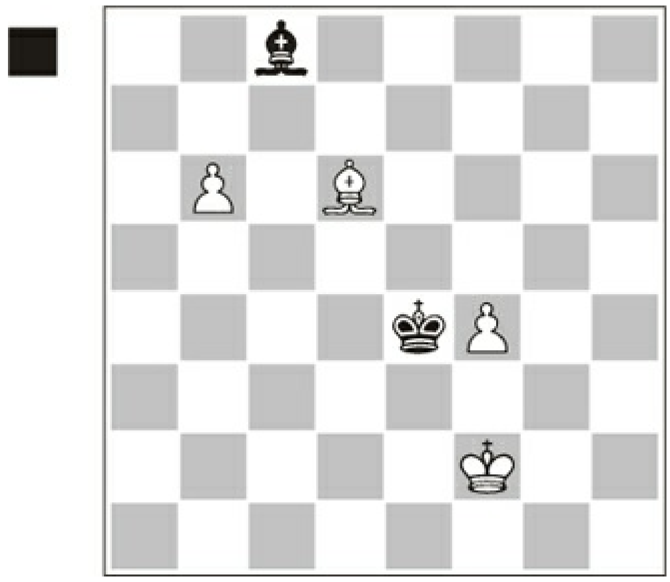
2.Ke4 Kf6 3.Kd5 Bg3 4.Kc6 Ke7 5.Kb6 Bb8! ½-½

There is no way to make progress. Black's king and bishop manage almost miraculously to hold their blockade. **It is obvious that the knight's pawn is very unfortunately placed on the 7th rank.**

ENDING 50 — The attacking bishop controls the promotion square of the knight's pawn

When the defending bishop controls the last-but-one step of the knight's pawn, but not its promotion square, some differences arise, but the basic ideas are still valid: Most cases are won but, if the knight's pawn has gone too far (here, the 6th rank), there is a perfect blockade position.

That occurs in this ending, which incidentally comes from an actual game Miller-Saidy (with reversed colours) where the pawnless player now resigned.

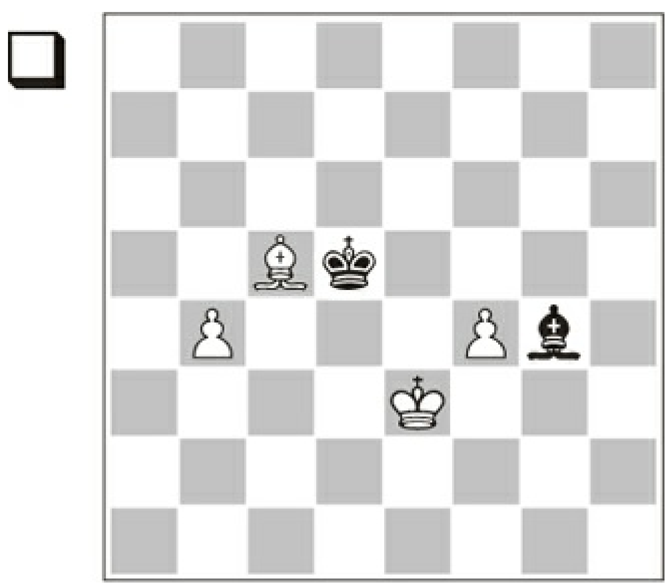


Position 9.18
Chéron

1...Bb7
Black can hold the blockade although the white king reaches g3.
2.Kg3 Kf5 3.Kh4 Kg6!
As usual, **outflanking on the edge of the board** cannot be allowed. 3...Bf3 4.Bc7 Bb7? (4...Kg6 would still draw) 5.Kh5 Bc6 6.Kh6 Bb7 7.Kg7 Ke6 8.Kf8 Bc6 9.Be5Z Bb7 10.Ke8+– and the white king finally comes to support his b-pawn.
4.Kg4 Bc8+! 5.Kf3 (5.f5+, as in the previous example, does not work here: 5...Bxf5+ 6.Kf4 Bc8=) **5... Bb7+ 6.Ke3 Kf5** (central penetration does not work either) **7.Kd4 Ke6 8.Be5 Kf5 9.Kc5 Ke6 ½-½**
The miraculous blockade is held with minimal resources, as in the previous example.

The knight's pawn is further back

We have seen how the knight's pawn can be an obstacle for its own king. Therefore, winning chances are greater if the pawn is further back.



Position 9.19
Speelman, 1981

The white king is ready to penetrate via d4. The black king must stop him, but then he will have trouble to avoid outflanking on the edge. By combining these two threats, White manages to break Black's resistance. First, White improves his bishop.
1.Be7 Bd7
Other moves would not work either to stop the white king, but their analysis is instructive: **1...Ke6** 2.Bd8 Kd5 3.b5 Bc8 (3...Bd7 4.b6 Bc8 5.f5 and two 6th-rank pawns bring an easy win) 4.Bc7 Ke6 (4... Bd7 5.b6 Bc8 6.f5+–) 5.Kd4 and the white king makes his way to support the b-pawn, even from the a7-square. Here the benefits of keeping the b-pawn less advanced become patent: the king's task is easier. **1...Bf5** 2.b5! Bc8 3.Bd8 (the threat is Kf3-g3-h4 and outflanking is unavoidable) 3... Ke6 (blocks the way to the edge...) 4.Kd4 (...but allows a central penetration) 4...Kd6 (cutting the

way to a7) 5.Ke4+–. Now the threat is 6.f5 as well as Kf3-g3-h4.

2.Bd8

A strange move intended to take the king to h5, without Black winning a tempo by …Ke6.

2...Kc4 3.Ba5! Kd5 4.Kf3

White gets ready for the outflanking manoeuvre. With normal play, the black king would fail to stop it, but his idea is to win time by attacking the f-pawn.

4...Bc8 (4…Ke6 5.Kg4+– and outflanking is secured) **5.Kg3 Ke4**

This is Black's idea: the white king can neither cross g4 nor lose the f-pawn.

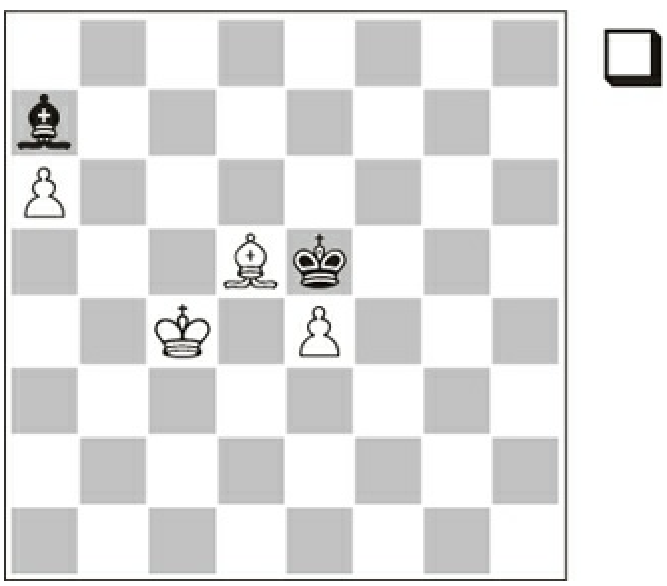
6.Bc7 Kf5 (forced; if 6…Bd7 7.Kh4 Kf5 8.Kh5+– and White succeeds) **7.Kf3!**

Now the white king changes his route and gets to d4. As we have already seen, this guarantees central penetration and victory. Instead, 7.Kh4 fails to 7…Kg6!.

7...Bb7+ 8.Ke3 Bc6 9.Kd4 1-0

ENDING 51 — Central and rook's pawns

After the previous examples, to say that life is easier for the stronger side with a rook's pawn will not come as a surprise. The attacking king has much more space for penetrating through the right wing.



Position 9.2
Chéron

This example perfectly illustrates outflanking on the edge, a typical but always noteworthy manoeuvre. Some white ideas involve king penetrations between the pawns, but Black has resources to stop this threat.

The only way is outflanking along the edge of the board. Since there is much space on the right wing, this strategy is likely to succeed.

1.Kd3 Kf4

A waiting strategy with 1…Bb6 fails as well: 2.Ke2 Ba7 3.Kf3 Bb6 4.Kg4 etc.

2.Ke2 Bb6 3.Kf1! Ba7 4.Kg2 Bb6 (4…Kg4 5.e5+–) **5.Kh3 Bf2**

The first attempt to stop the white king, but this barrier is easy to lift by means of zugzwang.

6.Bb7Z Kg5

Taking advantage of the fact that 7.e5 does not work. 6…Bb6 7.Kh4 makes things easier for White.

7.Bc6 Kf4 8.Bd5

This triangulation rounds off the first zugzwang. Now 8…Kg5 fails to 9.e5.

8...Be3 9.Kh4 Ke5 10.Kh5 Kf6

The second barrier.

11.Bb7 Z

The second zugzwang!

11...Ba7 12.Kh6 Bb6 13.Kh7 Bd4 14.Kg8 Bc5
The third barrier…
15.Bd5Z
… and the third zugzwang.
15...Ke5 16.Kf7 Kd6
16…Ba7 17.Ke7. No more obstacles: the king will reach b7.
17.Kf6
Lifting the blockade on the e-pawn. 17.Ke8 would also win, as the outflanking manoeuvre is completed.
17...Bd4+ 18.Kf5 Bb6 19.Ba8 Bd4 20.Bb7
The fourth zugzwang.
20...Bb6 21.e5+ Ke7 22.e6 Bd4 23.Bc8 Kd8 24.Bd7 Ke7 25.Ke4 Bb6 26.Kd5 1-0
The king will reach b7.

Conclusion: Central and rook's pawns separated by three files always win.

Final summary
The last sections have been quite dense, but they have illustrated some very frequent techniques. Although there are many different variables, now we will try to summarise the most useful conclusions.

General rules:

A. For the defence, the king must control the central pawn and the bishop, the flank pawn. Thus the king can block the path of his counterpart.
B. For the stronger side, the king must penetrate the enemy position to win. The possible routes are: right or left side of the pawns, or between the pawns; sometimes more than one attempt is necessary in order to succeed.
C. The most frequent plan is outflanking via the long side. The stronger side usually needs:
   1. Several zugzwang positions.
   2. A long walk along the edge of the board.
D. Although a king penetration is not a guarantee of victory, especially in the case of the knight's pawn (whose promotion may pose problems), it is usually winning.
E. The more advanced the flank pawn, the worse for the stronger side: his king finds more difficulties to pass through the pawns.
F. The more advanced the central pawn, the better for the stronger side: the defending king loses his central position and it is easier for the stronger side's king to penetrate.

Conclusions:

When pawns are separated by TWO files:

A. Two bishop's pawns normally win.
B. With a central and a knight's pawn, it is usually a draw; however, winning chances arise if:
   1. The knight's pawn is not far advanced and
   2. The attacking bishop has control over the promotion square.
C. With a central and a rook's pawn, the ending is drawn.

When pawns are separated by THREE files:

A. With a knight's pawn, drawing chances arise if the pawn is well advanced.
B. With a rook's pawn, the ending is usually won.

When pawns are separated by FOUR files:
The ending is won. The attacking king gets in between the pawns.

10. Rook + Pawn vs. Rook

Undoubtedly, rook endings are by far the most important endgames. There are several reasons for this: first, as we saw in the statistics, they are by far the most common type of endgame. In addition, they are far more complex and their theory is more abstract (therefore, more boring), and also, the number of important theoretical positions is much higher than in other endgames.

Practical aspects

I am sure the reader, no matter how experienced, has already noticed the frequency with which rook endings arise in his games (8% according to statistics) and has had time to regret how his lack of technique or basic knowledge made him lose a number of half points. Accurate play in rook endings is a very important indicator of a chess player's strength. I will not say, as Kortchnoi in his excellent book *Practical Rook Endings*, that after reading this book your Elo rating will increase with 100 points. Things are not that easy, and neither is rating the only way to evaluate a player, not even his playing strength, nor are rook endings the only way to measure rating. Nevertheless, I assure you that serious work on rook endings will notably improve your results.

Of course, most rook endings arising in a game start with many pawns on the board. However, it is by no means rare for them to end up in a simple Rook + Pawn vs. Rook (see statistics) and very often the basic positions we will study here (especially the Philidor and Lucena Positions) appear on the board. Apart from that, the study of Rook + Pawn vs. Rook is the first and essential step to understanding endings with more pawns on the board. All in all, I have no alternative but to advise you to read this (and the following) chapter with the utmost attention.

Given its special complexity, I have divided this chapter into many sections. I recommend that you take it easy and study each section separately. Besides, be sure that you master one section before you jump to the next, although the last one (on the rook's pawn) is more independent and can be studied at the beginning.

Technical aspects

Just as in other endings, the rook's pawn is very special. However, here the differences are so many that we will devote a whole section to them (Section 6). Let us start with those endings that involve any other pawn. I warn the reader that the rules we will state for these cases not necessarily apply to the rook's pawn. Of course, a sensible extrapolation is always possible.

As in other single-pawn endings, the stronger side strives to promote his pawn (in some exceptional positions, mate threats are an extra possibility), whereas the defending side has more varied resources than in the endings we have so far studied.

I consider a sensible way to organise our knowledge of rook endings would be to make the reader well aware of the resources available for the defending side: where they can be successfully adopted and where they do not work. Therefore, the examples will present, apart from the title, a reference to the main defensive technique, with the label **'DT'**. The understanding of the technique will help us extrapolate and guess the exceptions.

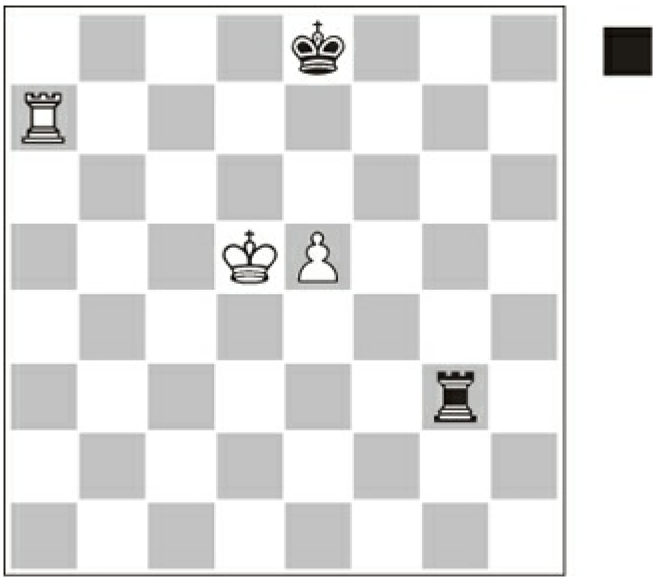
Section 1. Basic endings

In this section we will study two positions which are the most important ones in endgame theory. There are no excuses for not having a perfect knowledge of them; besides, ignorance can make you lose points!

ENDING 52	The Philidor Position

DT: Distant (rear) checks, cut-off king

A first approach to classify these endings is the position of the defending king. If he stands in the pawn's path, the defender is already halfway to salvation. Once we have reached this position, there are several drawing systems, but the so-called Philidor Position is the easiest one and it works against all pawns. Here it is:



Position 10.1

1...Rg6!

This is the basic defensive position when the king stands in front of the passed pawn. The rook stands on its 3rd rank and just waits. This manoeuvre is intended to stop the white king's progress. As we will see, the advance of the pawn is much less dangerous. Let us check what happens if Black deviates from the correct plan, or plays without a plan altogether. For instance: 1…Rg1?! 2.Kd6 Rd1+? 3.Ke6 and White is threatening checkmate, 3…Rd8? (a king move is better, but it would also lose as it would lead to the Lucena Position, which we will study later) 4.Rh7 and White wins straight away.

2.e6

After this move, Black's defence is very easy, whereas White cannot make further progress. Now it is easy to play against any move, as long as we follow this rule: **'Keep the rook on the third rank until the pawn moves'.**

Some players fear an eventual rook swap, but it is easy to see that the result would always be a drawn King + Pawn vs. King endgame: if rooks are swapped on c6, the black king gets to e7 and draws; there is no way to swap rooks on d6 or e6 (with the black king on d8) because… how could the white rook occupy those squares?

The text move threatens 3.Kd6, winning, but…

2...Rg1!

The point! As soon as the pawn reaches the 6th rank, the white king loses his shield against rear checks. The black rook gets ready.

3.Kd6 Rd1+! 4.Ke5 Re1+ 5.Kf6 Rf1+

The white king lacks a shield against checks, so the ending is drawn. This simple position, known since the 18th century, is perhaps the most important one in endgame theory. A great number of rook endings eventually lead to this position, and it is usually enough to secure the draw.

Summing up:

In the Philidor Position, the defending king has to stand in front of the pawn (on the 1st or 2nd rank, depending on the position of the enemy rook) while the rook waits on the 3rd rank for the pawn to advance. Once the pawn has advanced, the rook gets ready to deliver rear checks, and the attacking king cannot find a refuge.

A question may arise: does Philidor's position work on the 4th or 5th rank as well or not? The answer is: yes, it also works, but manuals always show the example on the 3rd rank because that is the extreme situation. Anyway, do not make things too complicated for yourself: the Philidor

Position is secure and simple to play. Therefore, if you reach a Rook + Pawn vs. Rook ending, you must try to adopt it.
However, this is not always possible, so it is important to know other defensive resources.

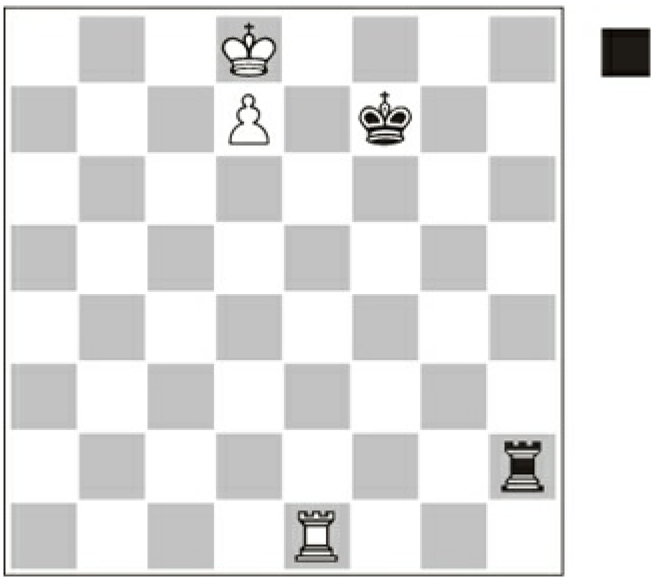
ENDING 53	Lucena Position. The bridge

DT: Distant (rear) checks

In our first example, we saw the most frequent procedure to draw; now we will see the most frequent procedure to win.

If the defending king fails to stand in front of the passed pawn, play usually leads to the Lucena Position, which is the one we will study now.

When I tell my pupils that most Rook + Pawn vs. Rook endings, if played accurately, end up in a Philidor or Lucena Position, at first they are shocked. However, once they have analysed several positions (as we will do in this chapter), they come round to the same conclusion. That is why these are the most important positions in this type of endgame and, by extension, in endgame theory. All players should know them very well. Other positions in this book may or may not arise in your chess career, but I assure you that you will meet these two quite frequently.



Position 10.2

In the diagram position the pawn has already reached the 7th rank and we will study the final part of the winning procedure. This position is very important because the stronger side will always be able to get here if the defensive techniques (Philidor being the most important) cannot be applied.

When the stronger side's king is on the 8th rank and the pawn on the 7th rank, the only efficient defence consists in transferring the rook to the 'long' side, a method we will see in our first example. If the defending rook is unable to deliver checks from the long side, the ending is lost.

This position owes its name to Lucena, and it would not be a good idea to change that name because names are useful for teaching and learning. However, this ending does not actually appear in the famous book by Lucena dated 1497, the first book on modern chess, of which there are still some copies left.

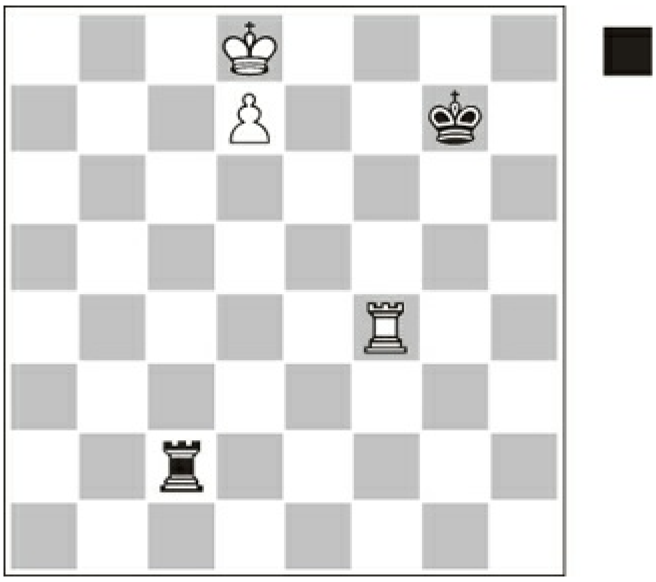
1...Rc2

Now the white king cannot get out, but Black is not saved either. White has three winning methods at his disposal, but I recommend that you pay attention to the main line, because this procedure can be applied against any pawn (the obvious exception being the rook's pawn) and it is the most instructive.

2.Rf1+

First step: The black king is cut off one more file.

2...Kg7! (2...Ke6 3.Ke8+–) **3.Rf4!**



Position 10.3

This is the **main procedure**. The rook will cover the king from rook checks. We call this manoeuvre **The Bridge**.

The bridge is a very vivid image, but also a very frequent procedure that can be applied with more pawns on the board.

Second method: 3.Ra1. White transfers the rook to c8. Note that this method is not possible with a knight's pawn. 3...Kf7 4.Ra8 Rc1 5.Rc8 Rd1 6.Kc7 Rc1+ 7.Kb6 Rb1+ 8.Ka5+–;

Third method: 3.Rf5. A less elaborated bridge. 3...Kg6 4.Ke7?! (4.Rf8 Kg7; 4.Rf4! is back on the right track) 4...Kxf5!. Note that this winning procedure allows the opponent to reach an annoying Rook vs. Queen ending. (4...Re2+ 5.Kf8 Rd2 6.Rf7+–) 5.d8Q+–. White will win but his task is not finished yet.

3...Rc1 4.Ke7

Threatening promotion. Black can just postpone it with checks.

4...Re1+ 5.Kd6 Rd1+ 6.Ke6 Re1+ 7.Kd5 Rd1+ 8.Rd4+–

End of the manoeuvre: promotion is unstoppable.

Section 2. Pawn on 5th rank or further

The chapter on rook endings is rather dense and needs to be divided into sections. These four key words can define the close relations existing between all endings where the pawn has reached at least the 5th rank: Philidor, Kling & Horwitz (K&H), Long Side and Lucena. This logical relation can be summarised as follows:

If the defender is unable to reach Philidor or K&H positions, the pawn will reach the 7th rank, and the attacker will reach the Lucena Position (thereby winning), unless the long-side strategy works.

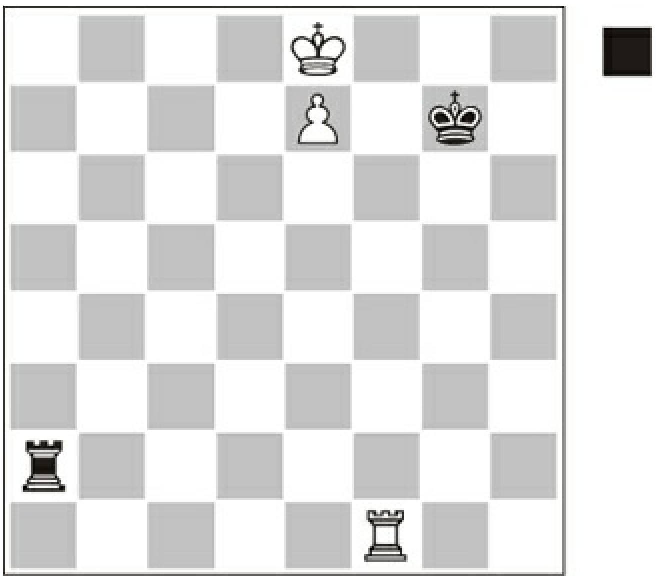
This looks like a word play, but if things are not clear for you after reading the first section, I recommend that you read it again after some time.

ENDING 54	The long side

DT: Distant (side) checks

We will now see some positions where other methods of attack and defence arise that are alternative and/or complementary to Philidor and Lucena. We can say that we are just one step below those essential methods. These positions are relatively less important than the previous ones, but they are still essential to a serious command of the endgame.

Position 10.4 is obviously related to the Lucena Position (see Position 10.2) and almost the only drawn position when the pawn has reached the 7th rank and is supported by the king. If White had the move, a simple rook check on g1 and promotion is coming. Therefore, Black needs to have the turn and start delivering side checks. However, these checks will only be successful if the rook and the pawn are separated by three files. Let us see:



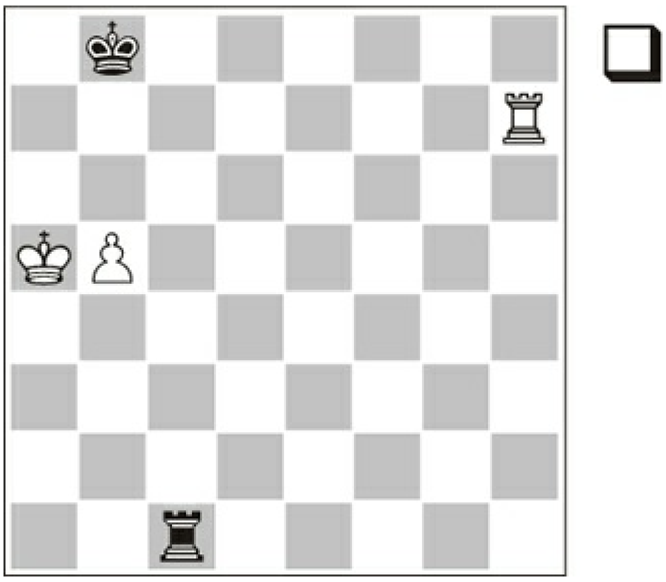
Position 10.4

1...Ra8+! 2.Kd7 Ra7+! 3.Kd8 Ra8+ 4.Kc7 Ra7+
Here, it is easy to note that, with a shorter distance (just one file), this check would be impossible. Then we realise that, to enjoy such a distance from the enemy king, the rook has to be on the long side of the board and, therefore, the defending king has to be on the short side. Note that the pawn divides the board into two unequal parts.

This is the famous 'long side' in rook endings. When the rook and the pawn are separated by three files, the rook succeeds. This rule of **distant effectiveness** is important because it also applies in the case of rear and frontal checks, as we will see in **Ending 59**.

Its application in practical play is enormous, since very often the defending king is forced to choose one side of the board. **In most cases the best side for the king is the short one, in order to leave the long side for the rook.** Here, it is the only chance. Thus we can establish another valuable rule: **'In order to avoid the Lucena Position, the only reliable resource is the long side'**.
5.Kd6 Ra6+ 6.Kc5 Re6!=
If the king goes too far from the pawn, the pawn is lost. Also note that Black would lose if his king were on the first rank due to 7.Rf8+.

ENDING 55 | The knight's pawn. First-rank defence



Position 10.5

Now we will see some defensive techniques that complement Philidor. First we will deal with the knight's pawn. This pawn and the rook's pawn allow an alternative and even more simple defensive technique.

1.Ka6

We can see that the Philidor method does not apply here.

1...Rc8!

This is the alternative method – in this position, the only one. The king stands in front of the pawn while the rook just stays on the first rank. It is important to realise that this procedure does not work against a bishop's or central pawn, because then there is more room for the attacking side on the left of the pawn. Given that clue, the reader should be able to discover the winning procedure with a bishop's pawn. You can check it as an **Exercise**.

2.b6 Rf8 3.Rb7+ Ka8!

Black has to be careful until the end: 3...Kc8? loses to 4.Ka7+–.

4.Ra7+ Kb8 5.Rh7 Rg8

It is easy to see that White cannot make further progress.

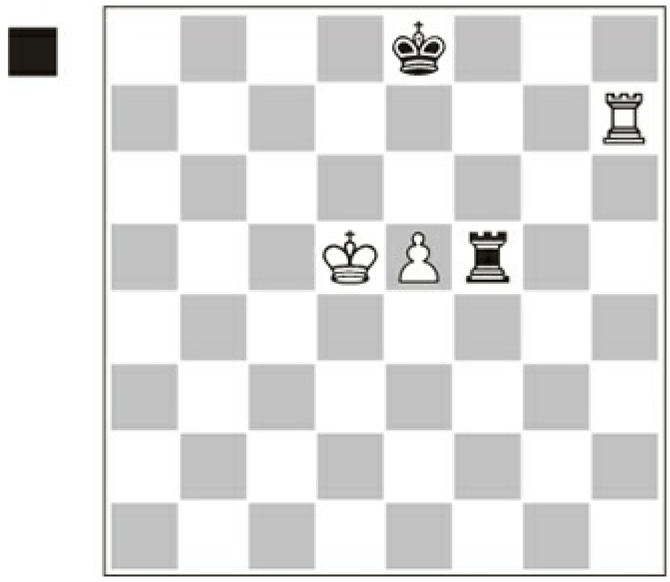
ENDING 56	Central or bishop pawns. Kling and Horwitz (K&H) defensive technique

DT: Rook in the rear of the pawn. Side checks

What happens with other pawns? Is the Philidor Position then the only defensive procedure available? And does that mean that the ending is lost if we cannot reach it? Well, no, but the defence is somewhat more difficult than against a knight's pawn. In the struggle against a central or bishop's pawn there is an important defensive technique: to place the rook at the rear of the pawn.

This resource always proves useful against a central pawn, even if the defending king is forced to the long side. Against a bishop's pawn, the king must be on (or move to) the short side. Against a knight's pawn, and this is essential (I will repeat it later in the summary), this defensive technique does NOT work.

I have seen many players, even title-holders, mix up defensive techniques. Pay attention and ensure that you will not add your name to the list.



Position 10.6

It is clear to see that Black will not reach the Philidor Position. I have deliberately chosen an unfortunate position for the black rook in order to illustrate all the problems that may arise. However, this is not the worst possible scenario: black rook on d5 and white king on f5 is a losing position for Black. You can check it after studying the example.

1...Rf1

If the defender cannot reach the Philidor Position, the rook must be ready to move to the rear of the pawn. We will see the reason in a moment. This is the only correct method, but Black can also draw with other moves, such as ...Rf2, as long as the rook can get to the rear of the pawn on the following move. Concrete analysis is complicated, but finding the right move is easy if you are familiarised with defensive techniques in rook endings: if the Philidor Position is out of reach, let us try to reach K&H; what if this also fails? Sometimes life is really hard!

2.Kd6

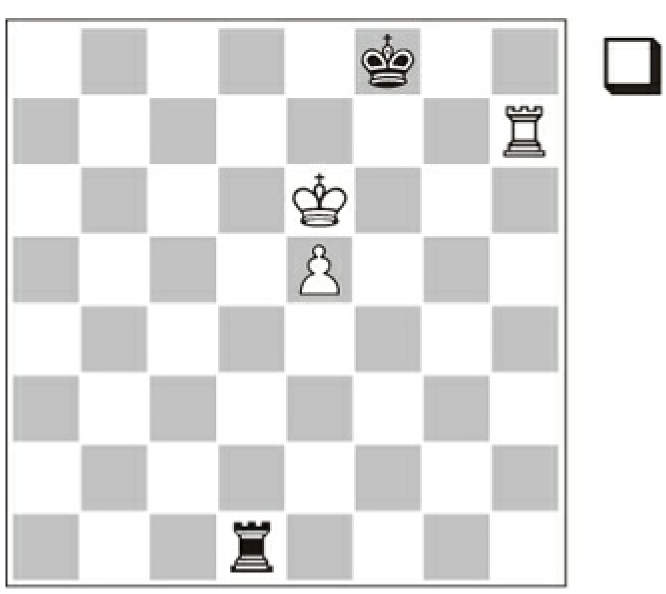
The most challenging move, as Black now has a range of options. White threatens a back-rank check followed by unstoppable promotion.

2.Ke6!? is an annoying alternative, but less practical because Black's answer is clearly forced: 2...Kf8! (not 2...Kd8? 3.Rh8+ Kc7 4.Ke7 and the rook fails to get to the rear of the pawn as in the main line) 3.Ra7 Re1! and basically we have reached the main line.

2...Re1!

Only move, difficult to find if you do not know the position. This is the K&H 'trademark'. The rook stands behind the pawn to prevent its advance.

2...Rd1+? would be a 'logical' mistake, interesting to analyse: 3.Ke6 Kf8.



Position 10.7
(analysis diagram)

The difference between this position and the one resulting from 2.Ke6 Kf8! is difficult to grasp. Then the f1-rook was hindering the sequence which will now follow, giving the rook time to reach its ideal position behind the pawn: 4.Rf7+! Ke8 (4...Kg8 5.Rd7 Re1 6.Kf6 and the pawn goes ahead,

though the ending is still difficult. The study of the following endings would help us understand, but remember that if we followed the correct procedure we would not reach this position) 5.Ra7 (winning a vital tempo to secure the advance of the pawn) 5...Kf8 6.Ra8+ Kg7 7.Ke7 followed by the advance of the pawn. The white rook occupies the important a-file and its counterpart lacks distant effectiveness; therefore Black is lost.

We will see this in **Ending 58**, but so far the important thing is that, if we can, we have to stand in front of the pawn.

3.Ke6 Kd8?

This move illustrates the faulty defensive technique (rook on the short side). We can compare with the case of a bishop's pawn. If there is a chance, we should always move our king to the short side. The text move is thus inaccurate. The correct choice was 3...Kf8!.

4.Rh8+

If White makes a waiting move, the black rook just waits as well; if White moves his king, Black can either check or wait, but going back to the previous position is safer: 4.Ra7 Re2!; 4.Kf6 Ke8.

4...Kc7

Now we can see the importance of placing the rook in the rear of the pawn: White cannot move Ke7 to secure the advance of the pawn. White can try different ways to make progress.

5.Kf6

A logical decision: White threatens to push the pawn. However, Black can easily force White back to previous positions. 5.Rh7+ Kd8 repeating; 5.Ra8 Re2 waiting; 5.Re8 leads to the main line after move 9.

5...Kd7!

Hindering the advance of the pawn.

6.Rh7+ Ke8 7.Ke6

We have again reached the position after move 3.

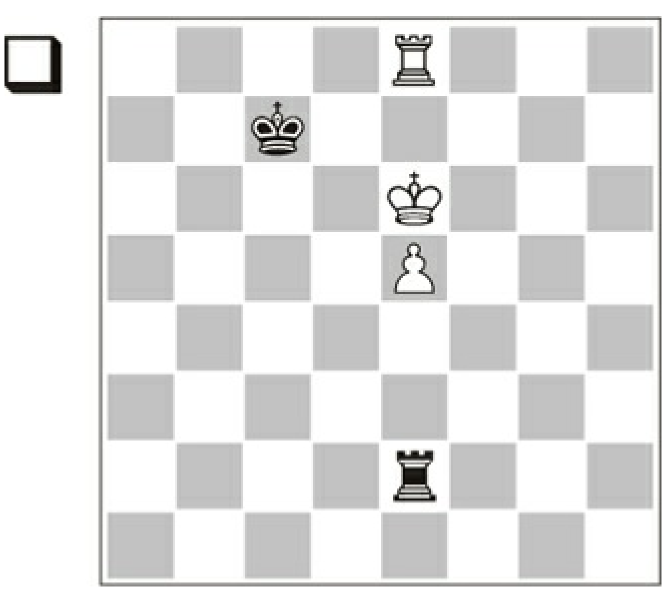
7...Kd8 (7...Kf8!=) **8.Rh8+ Kc7 9.Re8!?**

The only serious attempt to make progress. The threat is 10.Kf7 followed by the advance of the pawn.

9...Rh1

Getting ready to deliver checks... from the short side! But this is the only move here. It only works due to the unfortunate position of the white rook. Of course, this defence works better from the long side. Against a bishop's pawn this procedure would not be enough. Therefore, the defending king has to go to the short side in this case; otherwise, the ending is lost.

Nevertheless, it is important to see what would be the result of a waiting strategy by Black: 9...Re2?



Position 10.8
(analysis diagram)

10.Kf7!. This move that supports the advance of the pawn is possible due to the bad position of the black rook. 10...Rh2 (now it is late for this;10...Rf2+ 11.Ke7 Rh2 12.Rf8+–, hindering side checks. The threat is e5-e6, which would lead to a Lucena Position) 11.Rg8! (11.e6? Rh7+ 12.Kg6 Rh1 13.e7 Kd7=) 11...Rh7+ 12.Rg7 Rh8 13.Ke7 (13.e6? Kd6 14.e7 Kd7=) 13...Kc6 14.e6 Kc7 15.Kf6+ (White has

several winning moves) 15...Kd8 (15...Kc6 16.Rd7+– also leads to the Lucena Position, as a brief analysis can confirm: 15...Kd6 16.Rd7+ Kc6 17.Rd1 Rh6+ 18.Kf7 Rh7+ 19.Kg6 Rh2 20.e7 Re2 21.Kf7 Rf2+ 22.Ke8, reaching the Lucena Position) 16.Kf7 Kc7 17.Rg1 Rh7+ 18.Kg6 Rh8 19.Rd1 and the Lucena Position arises again.

10.Rf8

Trying to cover the king, but...

10...Re1!

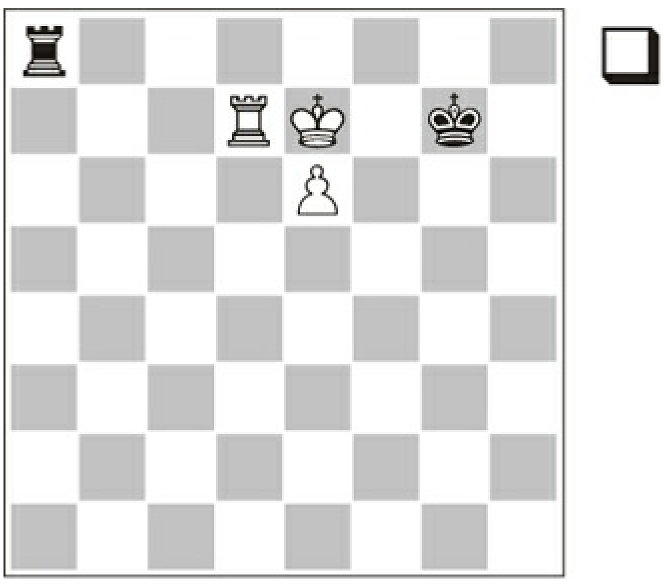
Insisting on the defensive strategy. White cannot make further progress. Draw.

ENDING 57	Central 6th-rank pawn. Rook with distant effectiveness

DT: Side checks

This example and the following one are the most difficult endings in this chapter. I will not recommend that you study them until you have fully understood the previous ones. On a first reading you can have a brief look or skip them altogether.

As a general, simple rule: Once the pawn has reached the 5th, 6th or 7th rank and the defending king is unable to occupy a frontal position (Philidor or first-rank defence), the only efficient defensive method is to occupy the long side with the rook. The less advanced the pawn is, the greater the drawing chances; nevertheless, other factors, such as the position of the rooks, also play a role.



Position 10.9

When the pawn is on the 6th rank, drawing chances are greater than in the case of a 7th-rank pawn, but this last method remains the only chance: The defending rook has to occupy the long side. If the stronger side's rook is ready to cover the king from checks, the black pieces have to occupy ideal positions to save the game.

1.Rd8

The defending rook occupies its ideal spot, that is:

A) The farthest file (distant effectiveness).

B) The 8th rank (preventing the white king from going there).

Therefore, White wants the black rook to move. 1.Kd6+?! facilitates the defence: 1...Kf8! and the king manages to stand in front of the pawn. On move 3 we will comment on other attempts.

1...Ra7+!

Using tactics to hinder White's progress. **1...Ra1?** would allow White to reach a Lucena-like position: 2.Ke8 Kf6 3.e7+–. **1...Ra6!** is the only move that also works, because it prevents the white king from reaching the back rank.

2.Rd7

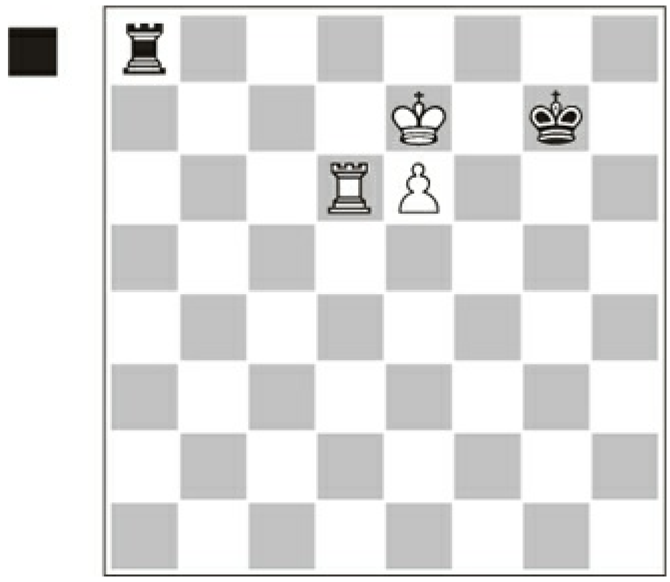
White would like to play 2.Ke8?! but then 2...Kf6= wins the pawn. Instead, 2.Kd6 is answered by

more checks: 2…Ra6+ 3.Ke5 Ra5+ 4.Rd5 Ra8 5.Kd6 Kf8 (Philidor).

2...Ra8

Other moves along the a-file would also draw, but keeping loyal to your defensive method is the safest way. One alternative has theoretical significance, but in practical play we recommend that you avoid complications and follow the simplest way. 2…Ra1 3.Ke8+ Kf6! 4.e7 Ke6!=. An interesting and not very well known drawing position with a 7th-rank pawn.

3.Rd6!



Position 10.10
(analysis diagram)

A rather poisonous attempt. Black is almost in zugzwang. He cannot allow the white king to move to the back rank when the white rook is so well placed; on the other hand, the black rook must not leave the a-file, or it would lose its distant effectiveness.

There are no problems for Black after 3.Rb7, for example: 3…Kg6 4.Kd7 Kf6 5.e7 Kf7= and White has made no progress.

3...Kg6!

Only move. The black king just waits as near the pawn as possible. 3…Ra1? 4.Ke8! (we have said that White wins if the king reaches the back rank) 4…Ra8+ 5.Rd8 Ra6 6.e7 Kf6 7.Kf8+–; 3…Ra7+? 4.Ke8!; 3…Kg8?? 4.Rd8++–; 3…Rb8? 4.Rd8 (4.Rd7? Ra8!=; 4.Ra6? Rb7+!=) 4…Rb7+ 5.Rd7 Rb8 6.Ra7, reaching **Ending 58**.

4.Rd7

White cannot make progress against accurate defence, so he goes back to the starting position. 4.Kd7 Kf6 5.e7+ Kf7=.

4...Kg7 5.Rc7

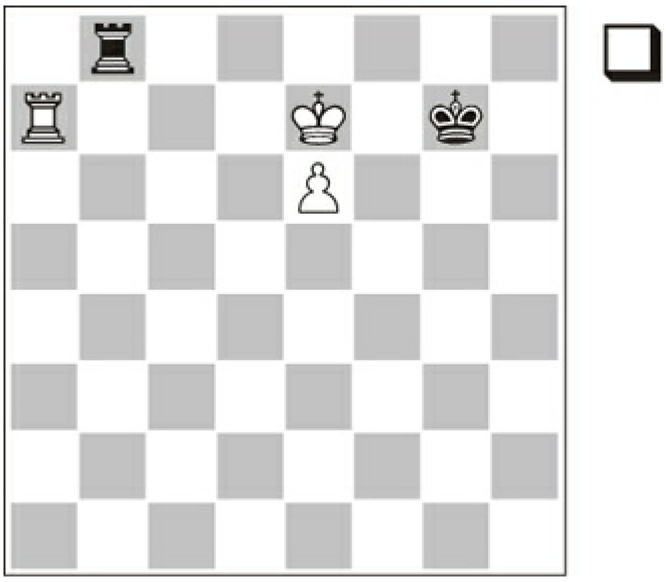
A third attempt. However, now Black has a broad choice. The alternative 3.Rb7 does not change things.

5...Kg6=

The easiest way, though not the only one. Some alternatives have theoretical significance. **5…Ra1** 6.Rd7 Ra2 (6…Ra8! is the simplest) 7.Ke8+ Kf6 8.e7 Ke6!=.

5…Rb8?, leaving the a-file, is a big mistake. With 6.Ra7 we reach the position where the defending rook lacks distant effectiveness (next example).

ENDING 58	Central 6th-rank pawn. Rook without distant effectiveness



Position 10.11

When the defending rook lacks distant effectiveness and the strong side has a central pawn on the 6th rank, the ending is won. The winning sequence is so accurate that it would be really difficult to find it over the board. On the other hand, that shows us we are in an extreme position, on the edge between a win and a draw.

1.Kd6+!

First, White must transfer the move to his opponent, as the black pieces occupy their ideal positions (apart from the loss of distant effectiveness).

The straightforward attempt to drive the black king away (that is, Rg1) to reach the Lucena Position, misses the win: **1.Ra1?** Rb7+! 2.Kd8 Rb8+! 3.Kc7 Rb2 (intending …Kf8 or …Kf6) 4.Rf1 (cutting off the king) 4…Ra2! The pawn needs one tempo to reach the 7th rank, so the black rook seizes the opportunity to recover distant effectiveness and save the game, as we saw in **Ending 54**. 5.e7 Ra7+ 6.Kd6 Ra6+ 7.Kc5 Re6. **1.Kd7?** does not work either: 1…Kf6Z 2.e7 Kf7=.

1...Kf6

1…Kf8 2.Kd7 Kg7 3.Ke7 is the same.

2.Kd7Z Kg7

No useful moves were available. For instance: **2…Rb1** 3.e7 Rd1+ 4.Ke8 Lucena; **2…Kg6** Here the king may be worse in some lines: 3.Ra1! Rb7+ 4.Kc6 Rb2 5.Re1! as in the main line.

3.Ke7Z

We are back in the starting position, but now it is Black's turn and there are no useful moves in sight.

3...Kg6

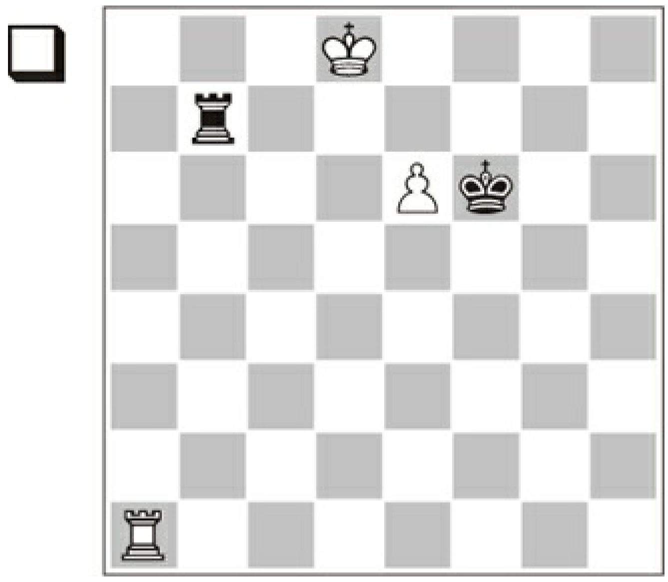
3…Rb1 would relinquish the 8th rank and lose: 4.Ra8! Rb7+ (4…Rb2 5.Ke8 Rh2 6.Ra7+ Kf6 7.e7 Rh8+ 8.Kd7+–) 5.Kd6 Rb6+ (5…Kf6 6.Rf8+ Kg7 7.e7+–) 6.Kd7 Rb7+ 7.Kc6 Re7 8.Kd6 Rb7 9.e7+–.

4.Ra1! Rb7+ 5.Kd8

I consider 5.Kd6 Rb6+ 6.Kd7 Rb7+ 7.Kc6 Rb8 8.Kc7 more practical, reaching the main line. This is longer but easier. The text move illustrates another possible line worth knowing.

5...Rb8+

After 5…Kf6 White wins thanks to a forced sequence full of important tactical details.



Position 10.12
(analysis diagram)

6.e7! Rb8+ (6...Rxe7?! 7.Rf1+) 7.Kc7 Re8 8.Kd6! Rb8 9.Rf1+ Kg7 10.Kc7 Ra8 11.Ra1! Re8 12.Kd7+–.
6.Kc7 Rb2 7.Re1!
Securing promotion, which would not happen with the black king on g7.
7...Rc2+ 8.Kd7 Rd2+ 9.Ke8 Ra2
9...Kg7 10.e7 – Lucena.
10.e7+–
Winning as in the Lucena Position.

Summary of Section 2

This section deals with those positions where the pawn has crossed the mid-line of the board and the defending side cannot reach the Philidor Position.

A. If the defending king stands in front of the pawn, there are drawing chances even though the Philidor Position is out of reach. However, you must remember that rules for the central and bishop's pawn do not apply to the knight's pawn. In the latter case, passive back-rank defence is the only option. Against a central pawn, the drawing technique is K&H.
B. If the defending king cannot stand in front of the pawn, the only valid method (apart from a few exceptional positions) involves transferring the rook to the long side so that it has distant effectiveness.

Depending on how advanced the pawn is, the defending side will have more or less time to arrange the ideal set-up for his pieces:

1. Against a pawn on the 7th rank, the defending rook has to deliver checks that cannot be covered by its counterpart.
2. Against a pawn on the 6th rank, distant effectiveness is enough; in some cases, the rook must not leave the back rank.
3. Against a pawn on the 5th rank there are more chances for the defender to get distant effectiveness, but difficulties may arise if the key file is under control of the enemy rook.

Now you can read again the sentence that introduced this section, which is an extremely concise summary of the study of all these positions. This idea alone may serve us to find our way through these endings, and clear guidelines are the basis of correct choices.

Section 3. Cutting off the king along files

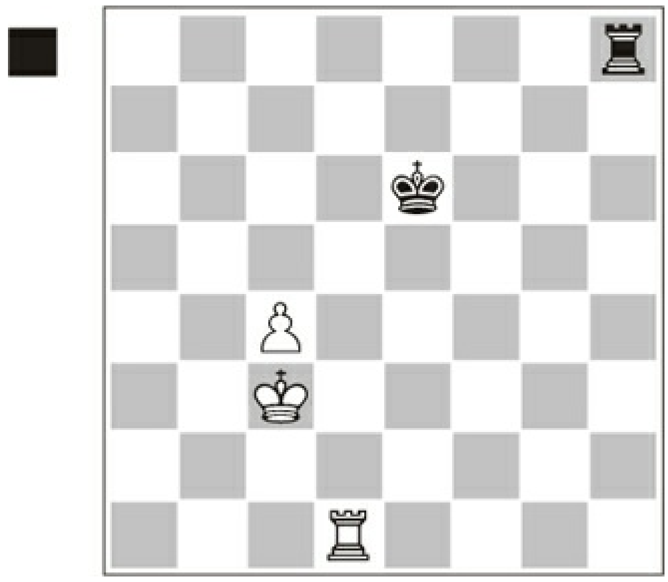
Here we will start to study positions where the pawn is behind the mid-line. Though the pawn is still far from its goal, the scenario is easier to understand.
The long side is not the one and only hope for the defending side. Actually the player with the pawn needs more assets to win the ending. The defending king must be cut off, either along a file or along a rank. We will deal with positions with the king cut off along a file in this section, and along a rank in the next section.

DT: Frontal checks, rook swap

In this new section we will deal with cases where the defending pawn is no further forward than the 5th rank. Since the pawn is so far from promotion, the defending king has plenty of time to get in front of the pawn and reach the Philidor Position. Therefore, winning chances necessarily involve cutting off the enemy king and preventing him from reaching the promotion zone.

There are two possible ways of cutting off the king: along a file and along a rank. Let us begin with the first case.

What happens when the defending king is cut off by one single file? In this position, both the rook and the king are ideally placed to prevent White's progress. This is by no means zugzwang, because the black pieces can keep their efficiency even if they move. However, lots of players, regardless of their strength, have made mistakes in these positions. Our analysis will show us that **the defending rook must** stay on the back rank and the king on the 3rd or 4th rank.



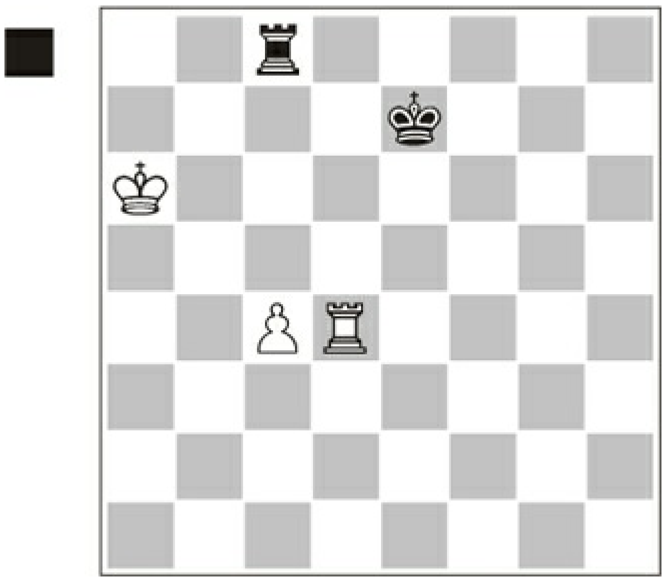
Position 10.13

1...Rc8

Here the rook restrains the pawn. This is the clearest way to draw, though not the only one. It is convenient to know why other apparently logical moves fail, and why other moves work:

1...Rg8 Any rook move along the 8th rank is enough to draw, as long as the rook is not exchanged or captured. 2.c5. Otherwise, play goes on the same as in the main line. 2...Ke7! intending ...Rd8. It is curious that this move would lose in the starting position, but here it is one of the only two drawing moves, since now in the resulting pawn endgame the white king will not reach the key squares: 3.Kc4 Rd8=. 2...Rg4! also draws, as the white king will not be able to aid his pawn. Black will capture the pawn if it advances, but this line requires accurate play. 3.c6 Ke7! 4.c7 Rg8=.

1...Ke7? Preparing (actually, threatening) a rook swap. In some positions, this is a useful resource, so it must be taken into account. However, here this is a wrong move. This is a rather frequent mistake, caused by the tempting possibility of getting a draw thanks to a rook exchange. This is a losing square for the king. 2.Kb4! A standard manoeuvre for the white king. He gets ready to occupy the a6-square, two files and two ranks ahead of the pawn (instead, 2.c5? Rd8!=; 2.Rd2? Rd8! 3.Rxd8 Kxd8 4.Kb4 Kc8!=) 2...Rb8+ (obviously, Black does not want to trade rooks anymore, as the white king would reach the key squares) 3.Kc5 Rc8+ 4.Kb5 Rb8+ 5.Ka6 Rc8 6.Rd4!.



Position 10.14
(analysis diagram)

The point. The black king is far from the e5-square and cannot attack the white rook in time. 6… Ke6 7.Kb7 Rc5 8.Kb6 Rc8 9.c5. The white pawn is already on the 5th rank and Black lacks side checks from the long side, so the ending is lost.

1…Rb8?! This move is not logical, as it allows the advance of the pawn, but it is also enough to draw. 2.c5!? Ke7! and Black manages to propose a timely rook swap: 3.Kc4 Rd8!.

1…Ke5? Cutting the white king off along a rank is not enough with the black king here. However, this is the right move when the black rook is on c8. 2.c5 Rh4 3.Rd8 Rg4 4.Kb3 (fleeing from a check along the c-file. After these preparatory moves, the pawn is unstoppable) 4…Rh4 5.c6 Rh6 (5…Rh7 6.Kc4) 6.c7+–.

2.Kb4 Rb8+!

A new resource: frontal checks to restrain the pawn. Note that frontal checks require the same distance as side checks to be successful. Therefore, since the rook and the pawn are separated by 4 files, **distant effectiveness** applies.

3.Kc5 Rc8+ 4.Kb5 Rb8+! 5.Ka6

5.Ka5!? is a good trick. Too many checks are wrong. As a general rule, an attack on the defenceless pawn is better than a check. 5…Ra8+? (5…Rc8! is the only chance, stopping the pawn and the king) 6.Kb6! and distant effectiveness disappears: 6…Rb8+ (6…Rc8 7.c5+–) 7.Kc7 and the pawn goes forward.

5…Rc8!

Again, too many checks fail. 5…Ra8+? loses to 6.Kb7 Ra2 7.c5+–.

6.Rd4 Ke5!

The point! Now it is a draw, as the white rook cannot defend the pawn and cut the king off at the same time.

7.Rd5+ (7.Rh4 Rb8=) **7…Ke6 8.Kb5 Rb8+! 9.Ka4 Rc8 10.Kb4 Rb8+ 11.Rb5 Rh8**

Black gets ready to move the king into the drawing zone and reach the Philidor Position.

12.Rb7!?

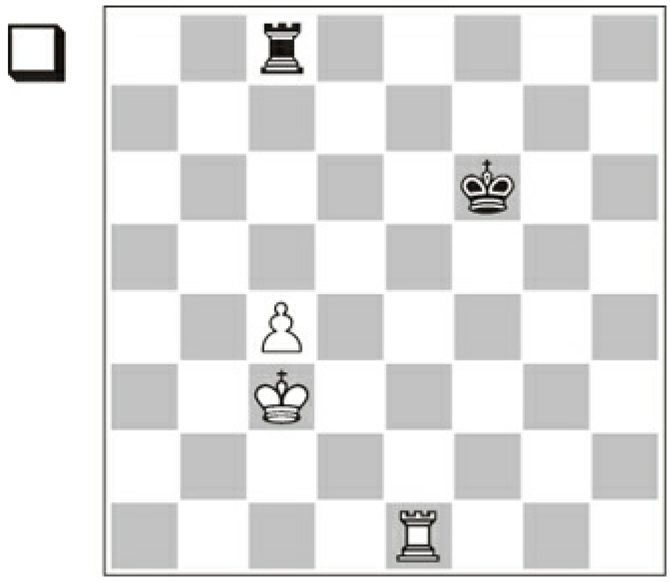
Trying to cut the king off along the rank. 12.Rd5 Rb8+=.

12…Kd6 13.Kb5 Rh5+ 14.Kb6 Rc5! 15.Rd7+ Kxd7 16.Kxc5 Kc7 ½-½

ENDING 60	Defending king cut off by two files. Grigoriev's combined method

DT: Frontal checks

In our last example we saw that, when the king is cut off by one file, the defending side is able to get a draw if he manages to place the rook and the king in their right positions. A question immediately arises: what happens if the king is cut off by two files?



Position 10.15

Here the ending is won with a bishop's or a central pawn. The winning procedure was discovered by Grigoriev and carries his name. When I explain the manoeuvre, it will become self-evident why it fails with a knight's pawn. Anyway, you can check it as an **Exercise**. It is worth studying and understanding the manoeuvre, as you will not forget it. Then, in an actual game, you just have to check whether you can apply this procedure or not. This is more sensible than trying to learn by heart which pawns and how many files are necessary to win. That would be a mess and you are likely to forget it as time elapses.

1.Kb4 Rb8+ 2.Ka5 Rc8!?

We already know that an attack on the pawn is more accurate than an excess of checks. 2…Ra8+?! 3.Kb6 Rb8+ 4.Kc7+– loses quickly.

3.Kb5 Rb8+ 4.Ka6!

The white king reaches his ideal square. Here the king is ready to defend the pawn on its way from the 4th rank to promotion, as well as to disturb the black rook from the b7-square. This is the first stage in Grigoriev's combined method. Note that with a knight's pawn, this would be impossible.

4...Rc8 (4…Ra8+?! 5.Kb7 and the pawn goes ahead) **5.Rc1!**

Once the king has reached the 6th rank, the rook goes behind the pawn to give it support. This is the second stage in Grigoriev's method. The black king fails to help his rook in time. 5.Re4 would also win, but the winning procedure is more difficult and I do not recommend it. However, it is worth knowing that this resource is available: 5…Kf5 6.Rh4 Ke6 7.Kb7 Rc5 8.Kb6 Rc8 9.c5+–.

5...Ke7 6.Kb7 Rc5 7.Kb6 Rh5

7…Rc8 8.c5+–. Once more, when the pawn has reached the 5th rank and the king cannot stand in its way due to the unfortunate position of the rook, the ending is lost. The Lucena Position will arise on the board.

8.c5 Kd8

A logical but useless attempt to reach the Philidor Position.

9.Rd1+ Kc8 10.Rg1!

Black cannot reach either the K&H or the Philidor Position, so the ending is lost.

10...Rh8 (10…Rh6+ 11.c6+–) **11.c6 Rf8**

Now we will see why a back-rank waiting strategy fails against a bishop's pawn.

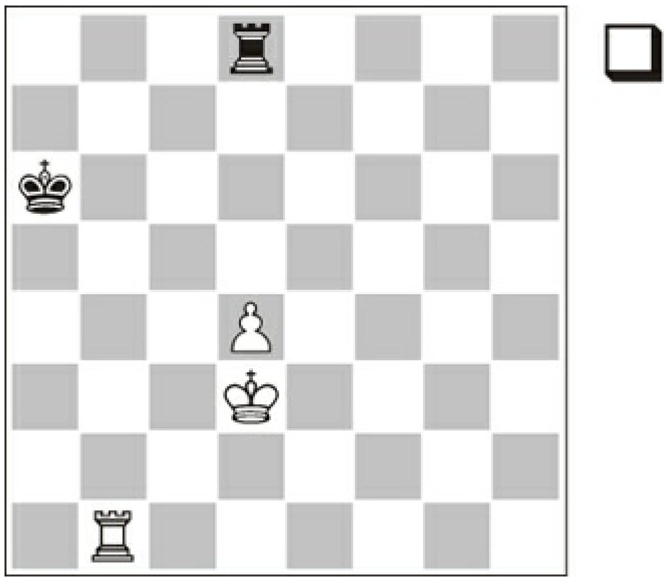
12.Ra1! This simple move is impossible if we shift the position to the left.

12...Kb8 13.c7+ Kc8 14.Ra8+ 1-0

ENDING 61	King cut off along two files vs. long side. Mating themes

A logical question arises: when the king is cut off along the file, is the long side important or not?

The answer is: yes, it *is* important, as regards technique, but it has no influence on the result. A single file is not enough to win; with two files there is just one long-side scenario, where the defending side loses due to mating themes. This is what we are going to see now.



Position 10.16

The black king is cut off by two files, but his rook will occupy the long side. Grigoriev's method does not work here, but White always wins thanks to some mating ideas. I recommend that you check this last statement (starting with 1.Ke4 etc) to strengthen your understanding of long-side defensive technique.

1.Kc4!

White's idea has nothing to do with Grigoriev's method: the king heads for the c6-square. We are going to see that Black loses, no matter where his king is. Imagine it is Black's turn and he can choose the position of his king:

1...Ka5! The best square. White needs to lose one tempo. 2.Rb2 Ka4 (for 2...Ka6, see the main line) 3.Rb7 Ka5 4.Rb1 (done!) and now, if 4...Ka4 5.d5!; **1...Ka7** 2.Kc4 Rc8+ 3.Kd5 Rd8+ 4.Kc5 Rc8+ 5.Kd6! Rd8+ 6.Kc7.

1...Rc8+ 2.Kd5 Rd8+ 3.Kc6!

This small trick secures the advance of the pawn: 3.Ke5?! Trying to apply Grigoriev is not enough to win, because once the black king gets one file nearer, long-side technique is enough to draw. 3...Re8+ 4.Kf6 Rd8 5.Rd1?? (of course, White could still return to the other plan with 5.Ke5) 5...Kb6 6.Ke7 Rh8! 7.d5 Rh7+!=.

3...Rc8+ 4.Kd7 Rc2 5.d5

And the pawn will promote.

Some ideas about cutting off

There have been attempts to establish some rules stating how many files are necessary to win in each case, but those rules were full of amendments and exceptions. As I see it, the best procedure is to learn ideas: defensive resources and attacking techniques.

If you have a good understanding of the combined method, in most cases you will be able to guess the correct result. We have not studied positions where the pawn has not reached the 4th rank, but those are less frequent and the same rules apply. However, it must be said that when the pawn is still on the 2nd rank, some variations can be extremely complex.

Summary

1. The stronger side cuts off the enemy king by one file: it is useful, but not enough to win if the defending pieces occupy the right positions.
2. The stronger side cuts the enemy king off by two files:
    A. When the pawn is on the 4th rank: if it is a central or a bishop's pawn, the Combined Method wins (there is just one case where the defending rook can occupy the long side, but then the stronger side has mating threats to win). The Combined Method cannot be applied with a knight's pawn; therefore, it is a draw.

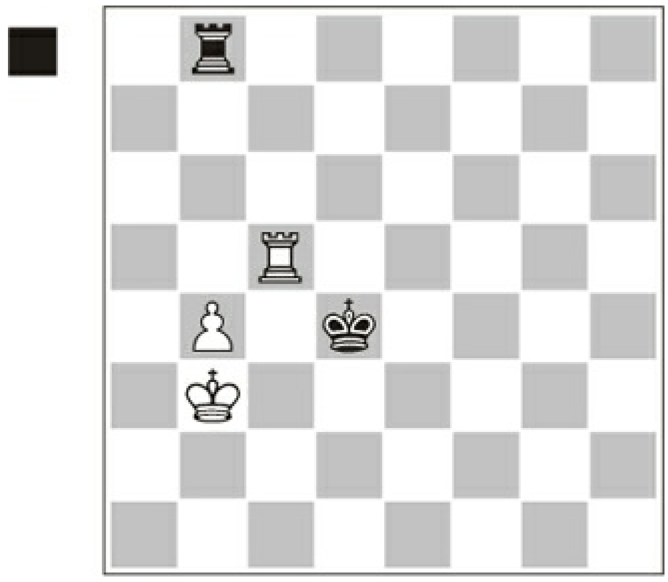
B. When the pawn is on the 3rd rank: the Combined Method is not enough, as the defending king has time to get in front of the pawn. Therefore, the ending is drawn if the defending pieces occupy the right positions.
3. The strong side cuts the enemy king off by three files: with the Combined Method, the ending is won with any pawn on the 3rd or 4th rank, but not on the 2nd.
4. The strong side cuts off the enemy king by four files: the ending is usually won, even when the pawn is on the 2nd rank, but more themes appear.

Section 4. Cutting off the king along ranks

There are two ways of cutting off the king. This is the most simple and efficient one. It can be applied beyond the 4th rank, and the procedure is the same, but we will study positions where the pawn is on the 4th rank or further up, as their analysis already contains the other cases.

ENDING 62	Perfect Cut along a rank

Knight's pawn



Position 10.17

This diagram illustrates a case of a king cut off along a rank. The idea is that the rook prevents the king from crossing ranks to get to the promotion area. It is important to note from the beginning that the defending king always occupies the long side. With the king on the short side, the defender's rook could occupy the long side and deliver checks. Then, the defending side would just laugh at the cut.

The defending king may be on the same rank as the pawn or on the adjacent one. When both pawn and defending king are on the same rank, as here, we call this a Perfect Cut. The study of these examples will show us why:

1...Ra8

Preventing 2.Ka4.

2.Rc6

Threatening 3.b5 and 4.Kb4. There are many other ways to make progress, such as 2.Rh5 followed by b5 and Kb4, also winning: 2...Rb8 3.b5 Rb7 4.Kb4 Rb8 5.Rh6 Kd5 6.b6 etc.

2...Rb8 3.Ra6

Now Black cannot prevent Ka4 and b5.

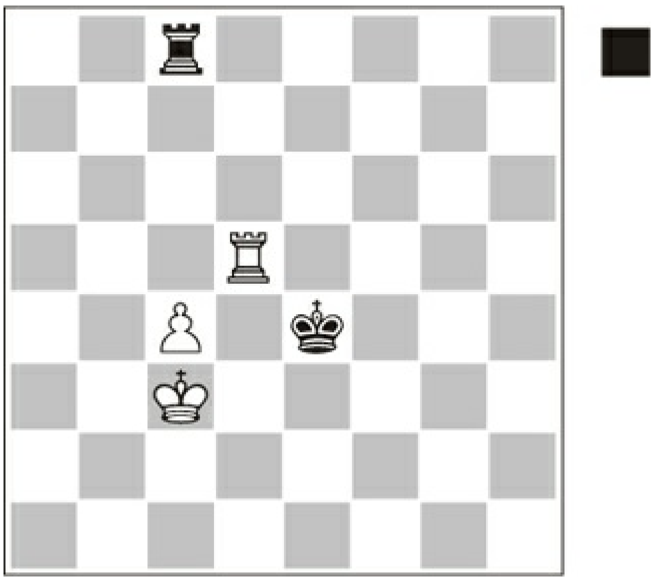
3...Kd5 4.Ka4! Kc4 5.Rc6+! Kd5 6.b5 Ra8+ 7.Kb4

As you can see, we have reached the starting position, just one rank further. So the procedure is repeated.

7...Rb8 8.Rc7 Kd6 9.Ra7 Kd5 10.Ka5 Kc5 11.Rc7+ Kd6 12.b6 Ra8+ 13.Kb5 Ra1

White threatened 14.Rh7, 15.b7 and 16.Kb6, so Black goes for rear checks; the problem is that play will now lead to the ever-present Lucena Position.
As an **Exercise**, the reader can check that this procedure also works when the knight's pawn is on the 3rd or even the 2nd rank, in the same fashion.

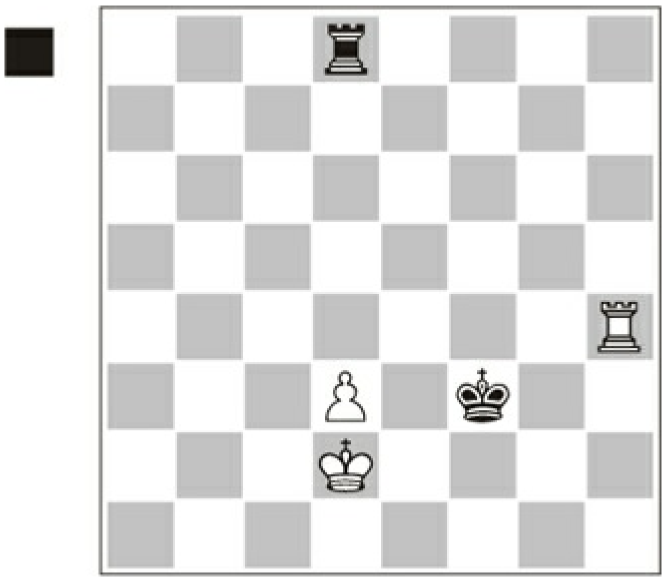
Bishop's pawn



Position 10.18

Even if Black is to move, the ending is lost, as in the previous example.
1...Rb8 2.Rh5 Kf4 3.c5 Rc8 4.Kc4 Ke4 5.Rh6 Ke5 6.c6
Therefore, we can state that the Perfect Cut along the rank also works with a bishop's pawn on the 4th rank. We can also state, without extra diagrams, that the same applies to the central pawn. Again, the reader can check, as an Exercise, that this procedure also works with a 3rd- or 2nd-rank bishop's pawn, in the same fashion.
As we will see in our next example, this procedure does NOT work with a 3rd- or 2nd-rank central pawn.

Perfect Cut with a 3rd-rank central pawn



Position 10.19

Here we are. Now a new defensive system is at Black's disposal..
1...Ra8! 2.d4 (or 2.Kc3 Ra3+, preventing progress: 3.Kc2 Ra8=) **2...Kg3 3.Rh5**
Attempting Kd3 or Kc3, reaching an ideal position (cut-off king, 4th-rank pawn), but Black does not surrender. Other moves are no improvement. **3.Rh7** Kf4 4.Re7 Kf5 5.Kd3 Kf6 reaching **Ending 59**. **3.Rh6** Ra3 (cutting the king off. 3...Kf4 would also draw: 4.Kd3 Kf5 5.Kc4 Ra4+ 6.Kc5 Ra5+ 7.Kb4) 4.Re6 Kf4= and draw; more or less, the same as the main line.
3...Kg4 4.Re5 Ra3!
Necessary... and good! The white king will not be able to aid his pawn. Curiously, it is the

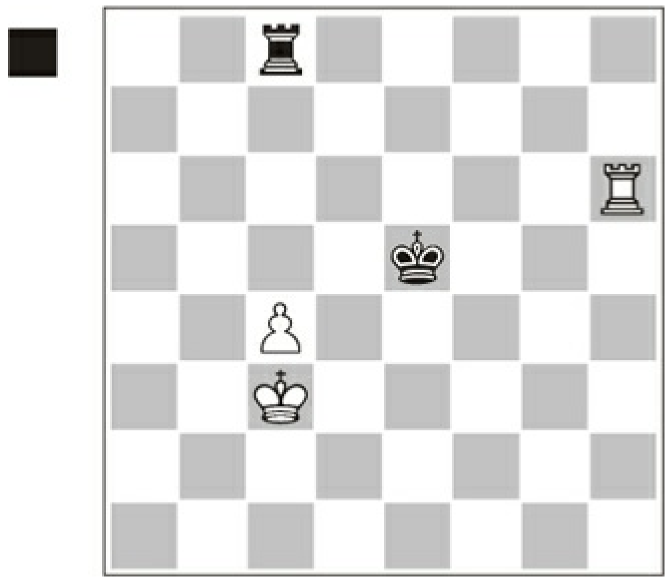
defending rook that cuts off the enemy king now.

5.d5 Kf4! 6.Re8

This defensive procedure fails when the pawn is one rank more advanced, as then the pawn would reach the 7th rank.

6...Ra5=

ENDING 63	Imperfect Cut along a rank



Position 10.20

We say that this cut is imperfect when the defending king is cut off along a rank but stays one rank ahead of the pawn (as in Position 10.19). Here White does not enjoy such a great advantage, although attack and defence techniques are still simple. If Black is on move, it is a draw.

1...Rb8!

White threatened to win by 2.Rb6. Now it is clear that no progress can be made. In order to understand that any other move was losing, instead of analysing lines, let us imagine that White was to move in the starting position:

1.Rb6! (White occupies this file to secure the advance of the pawn to the 5th rank) 1...Rc7 2.Kb4! (now only this move wins) 2...Rc8 (2...Kd4 3.Rd6+ Ke5 4.c5 is a Perfect Cut) 3.c5 Kd5 4.Rd6+ Ke5 and we have reached the position of the Perfect Cut: 5.Kb5 Rb8+ 6.Rb6+–.

2.Rg6 Rb7!

Black has to wait on the b-file.

3.c5 Kd5=

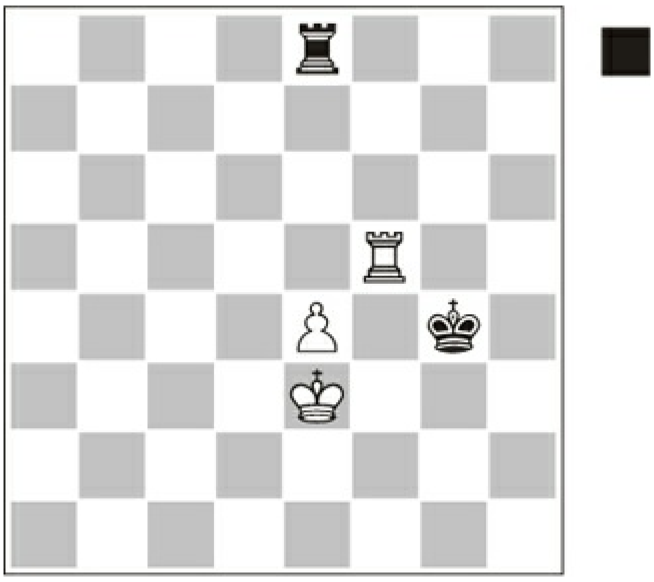
There is a marked contrast between this position and the previous one. That is why we call this scenario the Imperfect Cut along a rank.

This technique works the same with a knight’s pawn, and again the defending side needs to occupy immediately the file adjacent to the pawn. In the case of a central pawn, there are more possibilities for the defence, but you just need to remember that the same defensive technique shown here works.

ENDING 64	Apparent Cut along a rank

This is actually an example of long-side defence, but I have included it here because many players often confuse both scenarios. We have already stated that cutting the king off along a rank is not enough to win against a long-side defence. Now we will see it over the board.

You may think this is the same situation as in the previous examples, but it is not so. The black rook can deliver checks from the long side, and the cut is harmless.



Position 10.21

1...Ra8 2.Rc5

Other moves do not bring anything either: 2.Kd4 Ra4+ 3.Ke5 Ra5+ 4.Kf6 Ra6+ 5.Kf7 Ra4=; 2.Rf7 Ra3+ 3.Kd4 Ra4+ 4.Kd5 Ra5+ 5.Kd6 Ra6+ 6.Kc5 Ra5+=.

2...Rd8 3.Rd5 Ra8 4.Kd4 Kf4

The easiest way: the black king approaches the pawn.

5.Rf5+ Kg4=

White has to allow ...Kf4 or suffer checks from the black rook.

Summary: cutting the king off along a rank

The defending king can only be cut off along a rank on the long side. In other cases, the position is not dangerous if the defending rook occupies the long side.

The cut is perfect if the defending king stands on the same rank as the pawn, and imperfect if the defending king is one rank ahead of the pawn.

In the Perfect Cut scenario, the ending is always won with a knight's or a bishop's pawn, even if the pawn is still on the 2nd rank. To win with a central pawn, the pawn must be at least on the 4th rank.

In the Imperfect Cut scenario, the ending is drawn if the defending rook occupies the file adjacent to the pawn. Besides, more defensive resources are available against a central pawn.

Section 5. The rook's pawn

The rook's pawn is so special in these endings that there is a whole bunch of theory about it. Besides, this ending arises quite frequently, as rook's pawns usually have a long life on the board. Drawing chances are much higher here, and the strong side can only win in especially favourable conditions. Almost any logical sequence of play involves the defending side placing his king or rook in front of the pawn. Therefore, we will classify these endings taking into account which is the blocking piece:

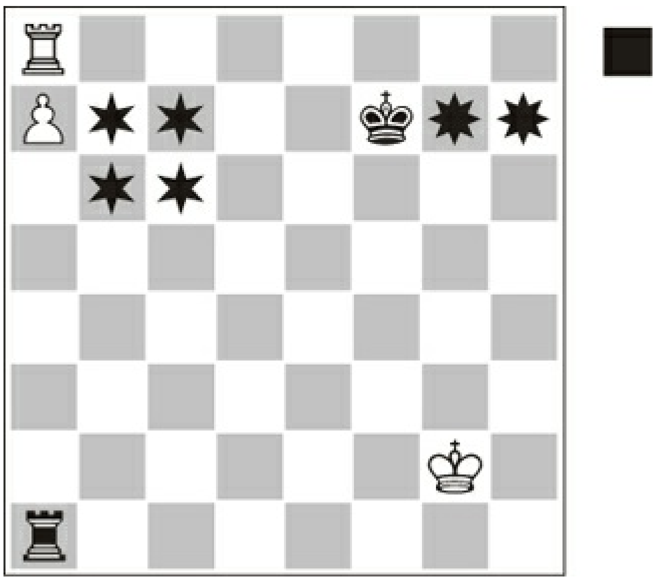
A. The king: then the ending is an ironclad draw.
B. The rook: then everything depends on which king arrives first. Some tactical subtleties arise when both kings arrive at the same time.

Thus, we will now deal with positions where the attacking king or rook stand in front of the rook's pawn. We need a couple of positions for each case.

ENDING 65	Pawn on the 7th rank. Attacking rook in front of the pawn

DT: Rear checks. Rook in the rear of the pawn

This is one of the most famous positions in rook endings. When the attacking rook stands in front of the pawn, the pawn can always reach the 7th rank, and this means either an immediate win or a very easy defence. The defending side has two opposite strategies: if he has time, he will move the king towards the pawn to capture it. If not, he must move the king in the opposite direction and keep him on g7 or h7.



Position 10.22

1...Kg7!

The defender has to place his king on g7 or h7. Then the stronger side cannot make further progress. Let us check that all alternatives fail: 1...Ra3?? 2.Rh8!+–; 1...Ke6?? 2.Re8++–; 1...Ke7?? 2.Rh8+–.

Now the rook cannot move; therefore, the only plan available for White is to support the pawn with the king, and that is what he does.

2.Kf3 Kh7 3.Ke4 Kg7 4.Kd5 Kh7 5.Kc6 Kg7 6.Kb6 Rb1+!

When the white king gets in contact with the pawn, the black rook will start delivering rear checks, as the white king lacks a shelter.

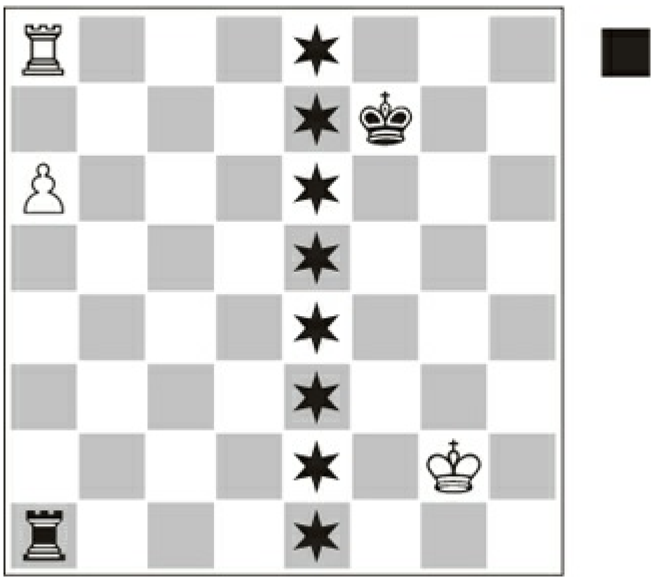
7.Ka6 Ra1+ 8.Kb5 Kh7

There is no way to make progress; it is an easy draw. It is interesting to check how, when the pawn has already reached the 7th rank, it is impossible to win even with an extra h- or g-pawn. We will see that in the next chapter.

ENDING 66	Pawn on the 6th rank. The Vancura Defence

DT: Distant (side) checks

We know now why the pawn should only reach the 7th rank if the black king cannot stand on g7-h7. So... what to do with it? If the pawn is not advanced, the defending king will come and capture it. Therefore, the best procedure is to take the pawn to the 6th rank, where it can be quite safe.



Position 10.23

The king is close to the safety zone g7-h7 and can get there if the pawn reaches the 7th rank. First question: can he go to capture the pawn?

1...Kg7

Answer: No! 1…Ke7? 2.a7! and the king gets trapped halfway; he cannot go back, as he will not get to the safe zone in time, but he has no time to reach the pawn: 2…Kf7 3.Rh8. Thus we can say that, when the pawn is on the 6th rank, the e-file is mined for the black king; if he has not crossed this file before, he cannot do it anymore.

Since the black king cannot approach the pawn, he gets into the safe zone instead. And now? We know White should not push the pawn but… is there something else to do? Yes, there is! Actually, this position was considered a win for White for a long time. Even the best chess players in the world were sure about this assessment, until a composer named Vancura found an astonishing defensive resource in 1924.

But let us speak first about White's winning plan. The pawn can now be used as a shield against checks, and thus White has a winning plan: the king goes to the a7-square, the rook comes out and the pawn promotes. On the other hand, it is difficult to find the right defensive plan if you don't know the position: the fact that even the best chess players in the world could not find it for many years is evidence of that.

2.Kf3

Trying to carry out the plan in the most straightforward way. Black will lose if he just waits. Other moves are possible, and the analysis of all king options is rather complex. For the moment we are just going to grasp the idea.

2...Rf1+

The starting point of the Vancura Defence. This moment is important and we must consider other options that may appear in an actual game. In our next example we will come to this.

Let us see what happens if Black just waits with 2…Kh7?, as in the previous endings with the pawn on the 7th rank. This plan illustrates all possibilities apart from the Vancura Defence: 3.Ke4 Kg7 4.Kd5 Kh7 5.Kc6 Kg7 6.Kb6 (now the king defends the pawn and the rook threatens to come out) 6…Rb1+ 7.Ka7. That is the point: the white king has a shelter. The rook will come out now and then the pawn promotes: 7…Kh7 8.Rb8 Ra1 9.Rb6 followed by Kb7, a7 and a8.

3.Ke4 Rf6!!

This is the point of the Vancura Defence: the rook attacks the 6th-rank pawn laterally; thus, if the white king approaches the pawn, the rook can deliver checks and the king cannot use the pawn as shelter. On the other hand, if the pawn is pushed, creating the threat Rg8, the black rook will immediately come back to the previous position, which we already know is drawn. Once we know the technique, its application is so simple that we just need a little care to avoid blundering. Let us consider some options:

4.Kd5 (4.Ke5 (threatening 5.Rg8) 4…Rb6 5.Kd5 Rf6=; 4.a7 Ra6!=) **4...Rb6 5.Kc5 Rf6 6.Kb5**

White threatens to take his rook out.

6...Rf5+

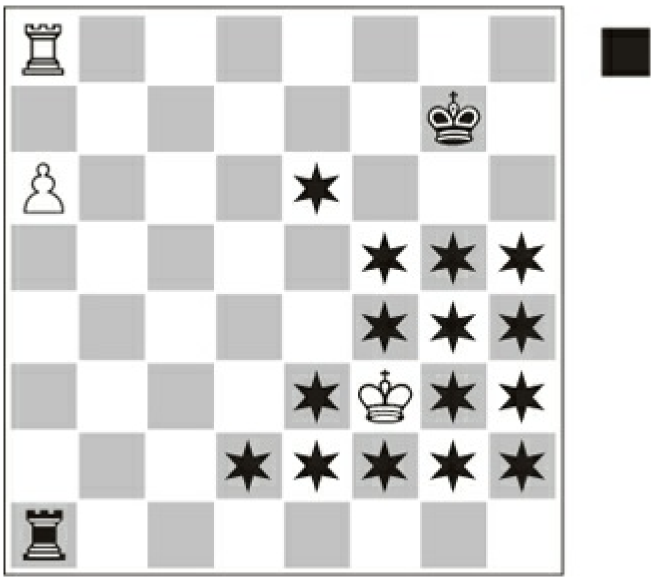
Now comes the series of checks.

7.Kb6 Rf6+ 8.Ka7 Rf7+ 9.Kb6 Rf6+ 10.Kc5 Rf5+ 11.Kd4 Rf6

It is an ironclad draw.

Vancura Defence (II)

Now that we know the Vancura Defence, it is easy to apply. Nevertheless, a quick look at databases may show you that many titled players have lost this drawn position. This is a clear demonstration of: if you do not know this, you will not find it over the board.



Position 10.24

But let us come back to the interesting position we had after White's second move. What would happen if it were White's turn again? Or if the white king's position was different (for example, after 2.Kf2, preventing a time-gaining check from the black rook to get to the 3rd rank)? What if Black plays carelessly and does not take his rook immediately to the 3rd rank? Or if the starting position is different? In short: how can we easily know whether the position is won or drawn?

In 1950, Romanovsky carried out a thorough study on the possible locations of the white king, supposing the black pieces were on a1 and g7. As usual, he established a drawing zone, which we can see in the diagram. However, as I have already said, I am not a great fan of memorising irregular zones, as very often they are not kept in one's head for long. Therefore, I recommend that you pay attention to the right procedures in order to be able to answer accurately in any particular case.

2...Ra5!?

Still enough to draw; in terms of analysis this is the most interesting move, though not the easiest one.

2...Rf1+! 3.Ke4 Rf6 is the line we analysed in our previous example, as well as the safest way to draw.

2...Ra4!? This move prevents the king from reaching the winning zone, so it is enough to draw as well. Since it hinders the white king, this is easier than the main line: 3.Ke3 Rb4 4.Ra7+ Kg6 5.Rb7 Ra4 6.a7 Kf5 and the black king wins the race towards the pawn.

First we will see what happens if Black carelessly wastes time: **2...Ra2?** 3.Ke4!. The king enters the winning zone. Let us see what happens now if Black 'wakes up' and tries to transfer his rook to the 3rd rank. 3...Ra5 (the rook will not find its way with 3...Re2+?! 4.Kd5+–) 4.Kd4 (the white king approaches b4. Now the rook must urgently move along the 4th rank to reach the 3rd rank) 4...Rb5 5.Ra7+ Kf6!? (putting the king on the 8th rank just helps White: 5...Kf8?! 6.Rb7 Ra5 7.a7+–; after 5...Kg6 6.Rb7 Ra5 7.a7 – as stated in the introduction to this section, the struggle becomes a mere king race, and the white king wins: 7...Kf6 8.Kc4 Ke6 9.Kb4 Ra1 10.Kc5+– and the king reaches b8) 6.Rh7! (the black king will arrive in time after 6.Rb7?, as he can gain a tempo in the king race by attacking the white rook: 6...Ra5 7.a7 Ke6 8.Kc4 Kd6 9.Kb4 Kc6=) 6...Ra5 7.a7 Ke6 8.Kc4 Kd6 9.Kb4 Ra1 10.Kb5!+–.

3.Ke4

3.Ra7+ allows many options, the soundest being ...Kg6: 3...Kg6 4.Ke4 Rb5=.

3...Rb5

The black king is about to reach the saving rank.

4.Ra7+ Kg6!

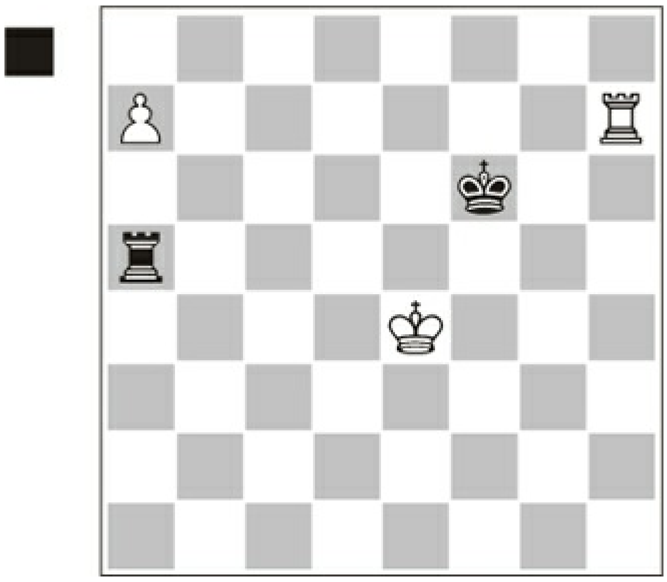
Now the only move, as ...Kf6 would allow the white rook to reach h6 in favourable circumstances, and the back rank is prohibited in view of the manoeuvre Rb7 and a6-a7. 4...Kf6 5.Kd4 Rb6 6.Rh7+–.

5.Rb7

On any other square on the 7th rank, the black king could also win a tempo on his way to the queenside. Instead, 5.Kd4 Rb6! 6.Kc5 Rf6=, and Black has reached the correct defensive set-up.

5...Ra5 6.a7 Kf6! 7.Rh7!?

Black has to be careful now. 7.Kd4 leads to a race whose result is already known. 7...Ke6 8.Kc4 Kd6 9.Kb4 Kc6=.



Position 10.25
(analysis diagram)

7...Kg6!!

Absolutely paradoxical (at first sight, as usual). The point is that the black rook must not leave the 4th rank, due to Kd5-c6, etc, and tactical problems arise if the black king hurries to the queenside. 7...Ke6? 8.Rh6+! Kd7 9.Rh8!+– is a known motif brilliantly executed.

8.Rc7 Kf6 9.Kd4 Ke6 10.Kc4 Kd6=

These variations are not exhaustive, but in my view they illustrate the situation quite well and help us draw some ideas to find our way in actual games.

You can play this endgame correctly with a good knowledge of the main themes and accurate calculation.

Let us summarise the main ideas from the perspective of the defender:

1. **The rook must go to the 3rd rank. Otherwise, the ending is lost, as the attacking king hides on a7.**
2. **If the rook can reach the 3rd rank by means of a check, there is no need for deep calculation.**
3. **If the rook cannot use a check, transferring the rook to its place in time is not enough. White will then have one tempo to activate his rook, and Black will have to calculate: a) some tactical tricks and b) a king race towards the queenside.**
4. **If the rook cannot make use of a check, at least it should prevent the advance of the stronger side's king as much as possible.**

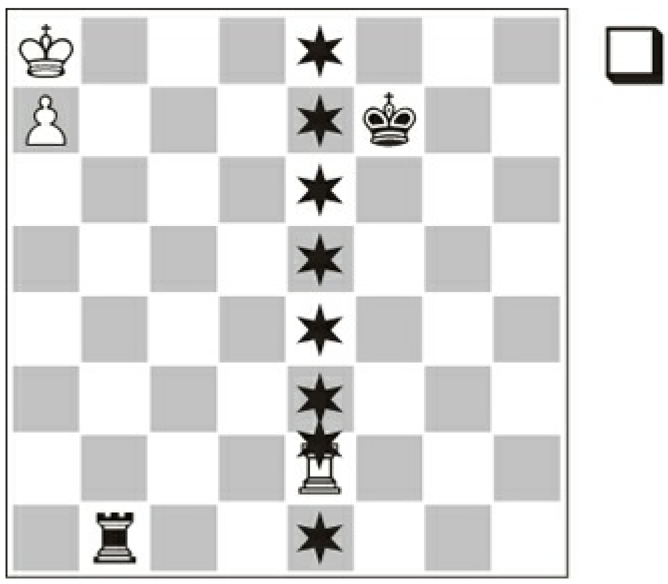
ENDING 67 — The king is in front of the pawn and the pawn is on the 7th rank

DT: Attacking king trapped, distant checks

We are going to see now what happens when the attacking king is in front of his pawn. We will start with positions with the pawn on the 7th rank. If the pawn is less advanced, it can be pushed without support from the rook, whose task is 'cutting off the enemy king'. On the other hand, if the attacking king supports his pawn but tries not to stand in front of it, the enemy rook will force him to do so by means of checks.

This is the most important position in Rook + Rook's Pawn vs. Rook endings. In order to win, the strong side needs to have the enemy king cut off on the f-file (or the c-file in the case of an h-pawn). If this cut is achieved when the pawn is less advanced, the pawn can be easily pushed later on. If this cut cannot be achieved, the best attacking procedure is to use the rook as a screen for the king before the enemy king approaches.

The winning sequence is long and complex but relatively easy to find over the board, if the clock allows you, once you know that the position is won.



Position 10.26

1.Rh2!

Once the pawn has reached the 7th rank, the rook heads for the b8-square. The journey takes three moves, no matter the chosen route. The defending king has to stay on the 2nd rank, as the white rook would get to b8 in just two moves with the black king on the 3rd rank, thus winning even if the black king was one file closer to the pawn.

1...Ke7 2.Rh8 Kd6!?

A good move, trying to make it difficult for the white king to get out via the a- and b-files. 2...Kd7 loses faster: 3.Rb8 Ra1 4.Kb7! (4.Rb7+? Kc8= and the white king will not come out of the corner. If you do not know this position, it is worth trying different alternatives, as you may reach this ending in your (blitz) games; 5.Rb2 Kc7 6.Rc2+ Kd7 7.Kb7 Rb1+ 8.Ka6 Ra1+ 9.Kb6 Rb1+ 10.Kc5 Ra1=) 4...Rb1+ 5.Ka6 Ra1+ 6.Kb6 Rb1+ 7.Kc5+–.

3.Rb8

The rook arrives just in time to offer an exchange and help the white king out, which would be impossible if the black king were on c6 or c7.

3...Ra1 4.Kb7 Rb1+ 5.Kc8!

5.Ka6 Ra1+ 6.Kb6 Rb1+ 7.Ka5 Ra1+ and White will not make progress here.

5...Rc1+ 6.Kd8 Rh1!

This resource creates the maximum difficulties. In case of 6...Rg1 the rook is not far enough away: 7.Ke8! Rg8+ 8.Kf7+–.

7.Rb6+!

The only way. 7.Ke8? Rh8+ 8.Kf7 Rh7+= and the pawn is lost; or 7.Kc8 Rc1+ repeating.

7...Kc5 8.Rc6+!!

This check is necessary to force the king to choose. **8.Ra6?** Rh8+ 9.Kc7 Rh7+ 10.Kd8 Rh8+ 11.Ke7 Rh7+ 12.Kf8 Rh8+ 13.Kf7 Ra8! 14.Ke7 Kb5 15.Ra1 Kb6=; **8.Rb8?** Rh8+ 9.Kc7 Rh7+=; **8.Rb1!?** would also win, but then a Queen vs. Rook ending arises: 8...Rxb1 9.a8Q+–.

8...Kb5

8...Kd5 9.Ra6 (9.Rc8 Kd6) 9...Rh8+ 10.Kc7! (10.Ke7?! Rh7+! 11.Kf8 Rh8+ 12.Kg7? Ra8=) 10...Rh7+

11.Kb6+–.

9.Rc8! Rh8+ 10.Kc7 Rh7+ 11.Kb8

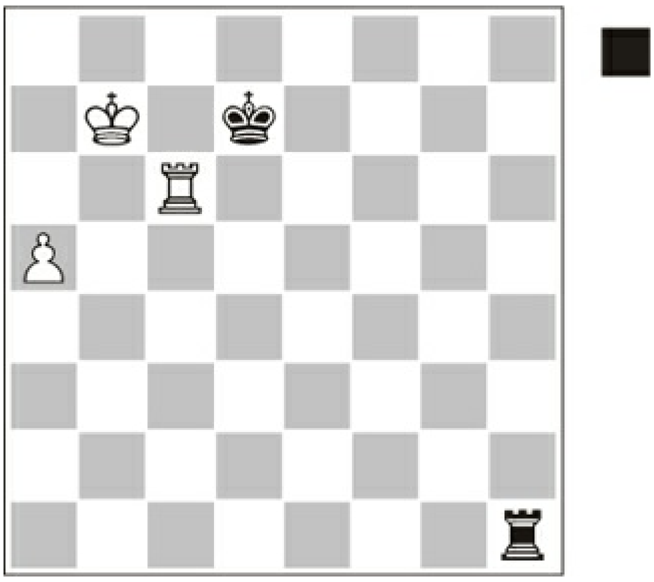
And the pawn promotes.

Summary of the ideas in this ending for the strong side:

1. **When the king is in front of his pawn, the enemy king must remain cut off as far from the pawn as possible.**
2. **If the weaker side's king is cut off on the f-file (or c-file for an h-pawn), the winning plan is to push the pawn to the 7th rank and then take the king out of the corner with the aid of the rook.**

ENDING 68 — The rook and the king support the pawn

We have seen that having the enemy king cut off by less than four files is not enough for the stronger side to push the pawn to the 7th rank and take the king out of the corner. Nevertheless, there is a chance to win with a favourable set-up that allows a shelter for the king before the pawn reaches the 7th rank, as we will see in our following example.



Position 10.27

Here we have the critical position where the king and the rook support the pawn. If White is to move, 1.a6 wins, as the pawn is unstoppable: 1...Rb1+ 2.Rb6 Rc1 3.a7 Rc7+ 4.Ka6 Rc8 5.Rb8+–.

If Black is to move, accurate play saves the game. Obviously, White's victory is easier if the black king is farther away or the pawn is more advanced.

If we keep this position in mind, we will be able to solve this kind of ending correctly, though there are many subtleties.

1...Rb1+! 2.Rb6 Rc1!

This is the ideal position for the rook to deliver checks.

3.a6

3.Rb2 makes sense, as White threatens 4.Rd2 and frees more squares for the king: 3...Rc7+ 4.Kb6 Kc8!= and the black king stands in front of the pawn or blocks the white king's way out.

3...Rc7+ 4.Ka8 Rc8+ 5.Ka7 (5.Rb8 Rc1 (not 5...Kc7? 6.a7+– and double zugzwang) 6.a7 Kc7!=) **5...Rc7+ 6.Rb7 Kc8! 7.Kb6 Rc1 8.Rh7 Rb1+ 9.Ka7 Ra1=**

There is no way to make progress.

11. Rook + two Pawns vs. Rook

In rook endings, there are many positions where two pawns are not enough to win. Only opposite-coloured bishop endings present a higher drawish trend.

Those positions where a rook and two pawns cannot win against a lone rook offer great theoretical-practical interest for many reasons:

A. They occur quite often.
B. Some are not easy to play unless you know the basic ideas.
C. They are a useful introduction to rook endings with more pawns on the board. Concepts such as a passive rook for the stronger side and an active rook for the weaker side are especially important.

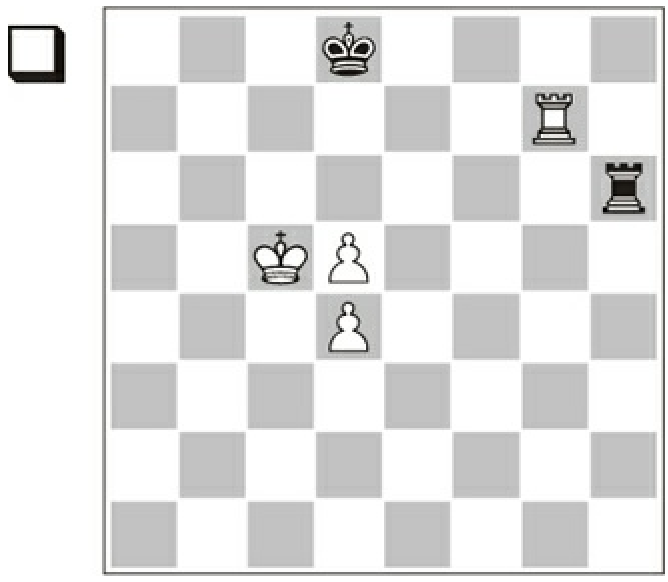
In order to study these endings we are going to distinguish five interesting scenarios with great drawing chances. These are the following:

1. **Doubled pawns.**
2. **Rook and bishop's pawns on the same wing.**
3. **Connected pawns blocked by the enemy king.**
4. **Attacking rook stuck in front of the 7th-rank pawn.**
5. **Pawns stopped by the Vancura Defence.**

This classification does not cover all possible drawish positions, but it includes the most important and frequent ones. Anyway, one should never diagnose as a win a position where the pieces of the stronger side occupy passive positions.

First scenario

ENDING 69	Central pawns



Position 11.1

Positions with doubled pawns are generally drawn. However, the first thing you should know is that not all drawing methods applicable against one single pawn are valid here.

The greatest danger if you do not know this ending, or you are not sure how to draw, is that you may have made a wrong decision at a previous stage of the game where simplifications were possible. That is why it is important to be sure that this is a draw, an easy draw in normal circumstances, and how to draw.

The best defensive procedure consists in starting with the Philidor Position and then making a timely switch to K&H.

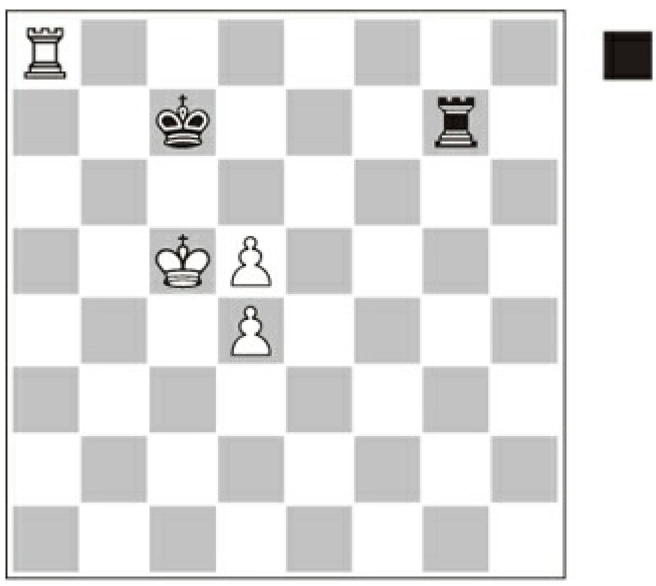
1.Rb7 Rg6 2.Rb6

This is the difference compared to positions with just one pawn. **White can offer a rook exchange and 'break' the Philidor Defence.** If we do not know the theory, we tend to be scared, especially if we have analysed this position 'from a distance'. That concern may lead us to make wrong simplifying decisions. Therefore, you should take a close look at the sequence and lay the ghosts to rest for good.

2...Rg4!

This move is important now. The only available method is K&H, but Black has to capture the second pawn when he puts the rook at the rear of the pawn. Of course, the pawn ending is lost; other moves mess up things, though they may still be enough for a draw.

Dvoretsky considers **2...Rg1?!** losing, on account of 3.Kc6! Rc1+ 4.Kd6+– and now 4...Rc8 5.Ra6 Rb8 6.Ke6 Rc8 7.d6 Rb8 8.Ra1 Rc8 9.Rh1, but in this line 3...Kc8! holds. 2...Rg7?! also loses, according to Dvoretsky: 3.Rb8+! Kc7 4.Ra8



Position 11.2
(analysis diagram)

4...Rg1! (4...Rg6? is indeed losing: 5.d6+ Kd7 6.Ra7+ Kd8 7.Kc6+–) 5.Ra7+ Kc8 6.Kc6 Rc1+ 7.Kd6 Rc4! and the rook reaches the right defensive position again, but Black is still in trouble: 8.Ke5 Rb4! (8...Kd8 is natural but loses on account of 9.Ra6! Rb4 10.Kd6 Kc8 11.Ra8+ Kb7 12.Kc5! (a difficult and important intermediate move. Now Black will not be able to reach the right defensive set-up) 12...Rb1 13.Rh8 Kc7 14.Rh7+ Kc8 15.Kc6 Rc1+ 16.Kd6 and two pawns render the K&H defence useless. You do not need to remember, not even to analyse, this long and complex variation, but it is instructive) 9.Ra6 Kd7.

In conclusion, other moves are possible, but you should not complicate your life in these endings. If there is a clear procedure, the best you can do is adopt this procedure and not deviate.

3.d6

3.Kc6 is more logical, but leads to positions already seen in the previous chapter: 3...Rxd4 4.Rb8+ (4.Kd6 Kc8 5.Rc6+ Kd8 6.Ra6 Kc8 7.Ra8+ Kb7 8.Rd8 Rh4!= **Long Side**) 4...Ke7= **K&H**.

3.Rh6 (intending Kd6) 3...Kd7! 4.Rh7+ Kd8= and now 5.Kd6 would allow Black to adopt the **Philidor Defence** again, and 5.Kc6 would allow **K&H**.

3...Rg1!

The rook can now move to deliver rear checks, while the d4 pawn is just a tiny shelter for the king, but cannot offer winning chances.

4.Kc6 Rc1+ 5.Kd5 Rh1 6.Rb8+ Kd7 7.Rb7+ Kd8 8.d7 Rh5+ (8...Ke7=) **9.Kc6 Rh6+ 10.Kc5 Rh5+ 11.d5 Rh6 12.d6 Rxd6!=**

ENDING 70	Knight's pawns

Second-rank defence

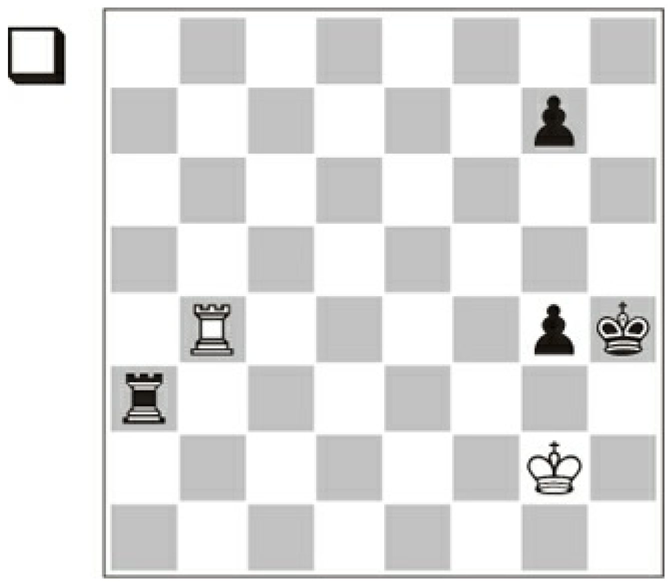
After having seen the last example, a terrible question may immediately arise: if the K&H defence is the only valid procedure for these endings and this procedure did not work against knight's pawns… what happens then if our opponent has two doubled knight pawns? Will first-rank defence work? No need to worry: we are going to compare procedures and differences, and then draw conclusions.

Firstly, first-rank defence is useless against two pawns, as the stronger side may trade rooks in favourable conditions (in the next diagram, the manoeuvre would be …g2-Rf3-Rf1).

Secondly, and more reassuring: the stronger side cannot break the Philidor Position with a knight's pawn, since there is not enough room.

Thirdly, if, as in our first example, the Philidor Position cannot be achieved, there are alternatives to K&H that are actually valid against other pawns.

Against two knight's pawns the defending side must be careful and set up a different defensive position which we can name the **Second-rank defence**.



Position 11.3

Kolesnikov – Bocharov

Sochi 2004

This game constitutes a warning against careless play.

1.Rb8?

After this, the white king is pushed to the back rank and Black wins thanks to the second pawn. **Therefore, the defending king should avoid being pushed to the back rank.** Then the right move is:

1.Rb2! This set-up is impregnable because Black has no room on the kingside. It would also work against a central or bishop's pawn, but it is not so advisable. 1…Ra4 2.Rc2 (White can easily turn to the Philidor Position now: 2.Rb3 and there is no way to break it; if 2…Ra2+ 3.Kg1 g3 4.Rb8 and rear checks) 2…g5 3.Rb2 g3. Black intends …Rf4-f2 with a winning pawn endgame, and this threat can break White's set-up. Nevertheless, we know that the pawn must reach the 6th rank after the king has done so; now we switch to a well-known defensive procedure: rear checks. 4.Rb8=.

1.Rb7? White captures the pawn, but we know that this loses. 1…Ra2+ 2.Kg1 Kh3 3.Rxg7 Kg3 (reaching a position we have already seen in the previous chapter) 4.Kf1 Ra1+ 5.Ke2 Rg1!–+.

1…Ra2+ 2.Kg1 Kh3 3.Rb3+ g3 4.Rb1

The only option, but now we will see why first-rank defence does not work against two doubled pawns.

4…Ra3 5.Rc1 g5 6.Rb1 g4 7.Rc1 g2 8.Rb1 Rf3 9.Ra1 Rf1+ 10.Rxf1 gxf1Q+ 11.Kxf1 Kh2

And the second pawn promotes.

Conclusion of the first scenario. Doubled pawns:

1. **Against central pawns, defence starts by the Philidor Position; when a rook exchange offer breaks it, the defending side must turn to K&H, but putting the rook on the same rank as the less advanced pawn, in order to capture it.**
2. **Against knight's pawns, the defending king must avoid being pushed to the back rank. This can be achieved by means of the Philidor Position (the stronger side cannot break it now) or by second-rank defence. The latter consists in keeping the king and the rook on the second rank until the pawn reaches the 6th rank.**
3. **Against rook's pawns, defence is quite easy.**

Second scenario

The second drawing scenario is very famous… but little-known. Almost every player knows that this ending, with rook and bishop's pawns, is a draw; however, most fear reaching this position, and they are right.

Certainly, to defend this ending, it is not enough to know that it is drawn; not even to know the best defensive set-ups, or the Rook + Pawn vs. Rook endings that may arise on the board at any time. Of course, all this is necessary, but not enough. You will also need patience, tenacity and constant alertness.

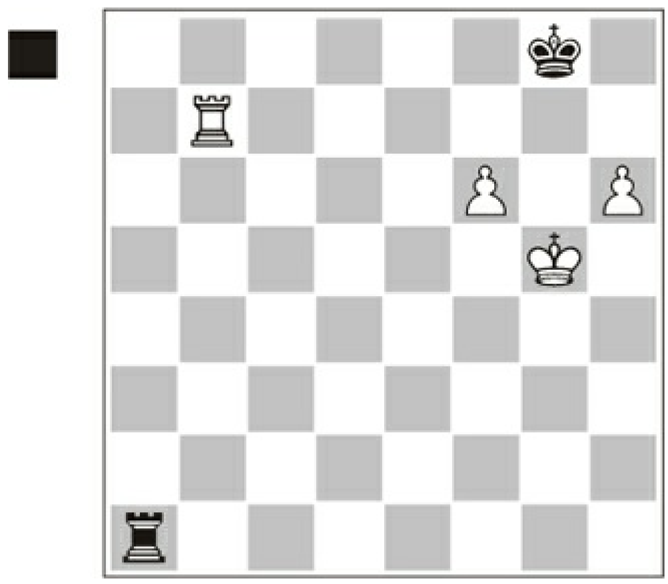
In any case, this ending will one day occur in one of your games and knowledge of the accurate defensive technique is undoubtedly useful. Life is far easier for the attacking side.

Let us start with a difficult situation for the defending side: the king is cut off on the back rank. Then we will deal with the normal defensive procedure.

ENDING 71 — Defending king cut off on the back rank

The experience gathered in many games, as well as the analyses published in several books, above all the classical work by Levenfish and Smyslov *Theory of Rook Endings*, conclude that, when the defending king is cut off on the back rank, the ending is usually lost. The variations are not easy but, as usual, defence is more difficult than attack.

First we will see that the ending is lost if both pawns have reached the 6th rank:



Position 11.4

White threatens 1.h7+ followed by 2.Rb8+ and 3.f7. Checks are the only option.

1...Rg1+ 2.Kf5 Rf1+ 3.Ke6!

Maintaining the threat. The king heads for e8. Apparently, White could win without his king, but there is a diabolical resource.

Near the edge of the board, we should never forget stalemate themes: 3.Ke5 Re1+ 4.Kd4 Rd1+ 5.Kc3 Rf1 6.h7+ (6.Rg7+ Kh8 7.f7 Rc1+ 8.Kd4 Rc4+ with a desperate rook sacrifice) 6...Kh8 7.f7 Rxf7! and draw.

3...Re1+ 4.Kd6

4.Kd7? Kf7 allows Black to hold.

4...Rd1+ 5.Ke7 Re1+ 6.Kd8 Rd1+

If Black stops delivering checks to attack the bishop's pawn, the rook's pawn plays a decisive role: 6...Rf1 7.h7+! Kh8 8.Rb8! Kxh7 9.Ke7 Re1+ 10.Kf8. As we saw in **Ending 58**, when the stronger side's king has reached the 8th rank there is no way to stop the pawn.

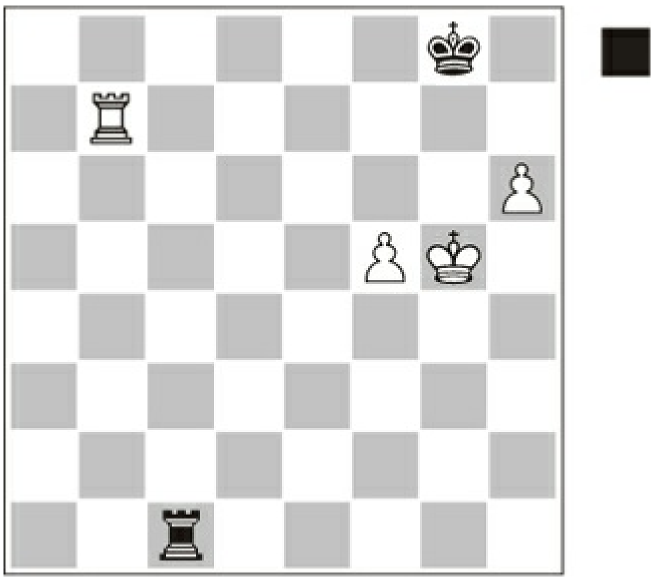
7.Ke8 Re1+ 8.Re7 Rf1 9.f7+ Kh8 10.Re6!+–

Followed by f7-f8.

It would be wrong to play 10.f8Q+ Rxf8+ 11.Kxf8 and stalemate again.

Once we know that the ending is easily won when both pawns have reached the 6th rank, let us see what the defending side can do to avoid this situation. We will seek help in Levenfish and Smyslov's work.

ENDING 72 — Bishop's pawn on 5th rank



Position 11.5

White threatens f5-f6, reaching the position in our previous example. So…

1...Rg1+ 2.Kf6

Now Black can follow three possible paths: to stay behind the h-pawn, to stay behind the f-pawn, or to wait. All are stubborn, but all lose.

2...Rh1

2...Rf1 3.Rg7+ Kh8 (3...Kf8 4.Rg5 Rh1 5.Kg6+–) 4.Re7 Kg8 5.Re8+! Kh7 6.Ke6 Kxh6 (6...Ra1 7.f6 Ra6+ 8.Kf5 Ra5+ 9.Re5 Ra8 10.f7+–) 7.f6 and promotion cannot be stopped, as 7...Re1+ leads to a lost endgame.

2...Ra1 3.Re7 Ra2 4.Ke5 (the king makes way for the pawn. Instead, 4.Ke6? Ra6+=) 4...Re2+ (4...Ra5+ 5.Kf4 Ra4+ 6.Kg5 Ra5 7.Kg6) 5.Kd6 Rf2 6.Ke6 Re2+ 7.Kd7 and now:

A) 7...Rf2 8.Re8+ Kh7 (8...Kf7 9.h7+–) 9.Ke6 Re2+ 10.Kf7 Ra2 11.f6 Ra7+ 12.Ke6 Ra6+ 13.Kf5 Ra5+ 14.Re5+– and the f-pawn cannot be stopped;

B) 7...Rd2+ 8.Ke8 Rf2 9.Re5 Kh7 10.Kf7 Kxh6 11.Re6+ Kh7 12.f6 Ra2 and the black rook cannot reach the back rank (thus drawing, as we saw in **Ending 58**) in time. 13.Kf8!+–. If it is the stronger side's king which reaches the 8th rank, the ending is won.

3.Rg7+ Kf8

3...Kh8 4.Re7 Rxh6+ 5.Kf7 Ra6 (once again, the rook cannot reach the back rank. The reason now is the unfortunate position of the black king) 6.f6 Kh7 7.Kf8+ (the stronger side's king is on the 8th

rank…) 7…Kg6 8.f7 Kf6 9.Kg8!+–.

4.Kg6 Rg1+ 5.Kh7 Rf1 6.Ra7 Rg1 (6…Rxf5 7.Kg6! Rf1 8.Ra8+ Ke7 9.h7+–) **7.f6 Rg2 8.Rg7 Rf2 9.Kg6+–**

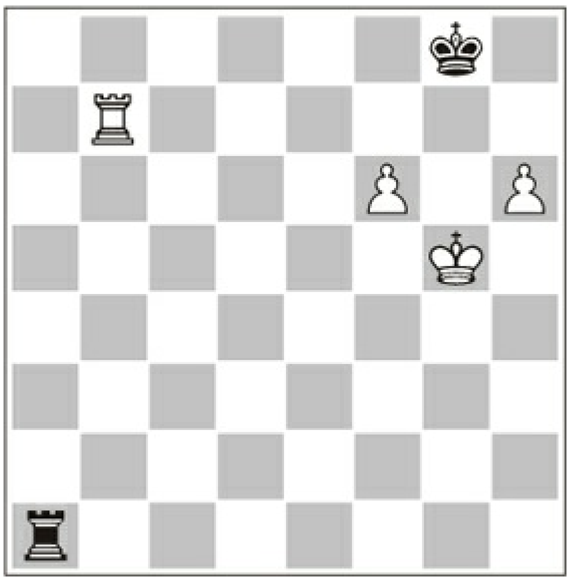
When the checks are over, Black cannot stop the manoeuvre h6-h7 followed by Rg8.

We have seen that two pawns on the 6th rank lead to an easy win and, if the bishop's pawn is on the 5th rank and the rook's pawn is on the 6th rank, a very complex and accurate sequence makes victory possible. One of the aims of this book is that the reader obtains the maximum knowledge from the minimum analysis (see the introduction). Nevertheless, we cannot avoid complex analyses in some positions.

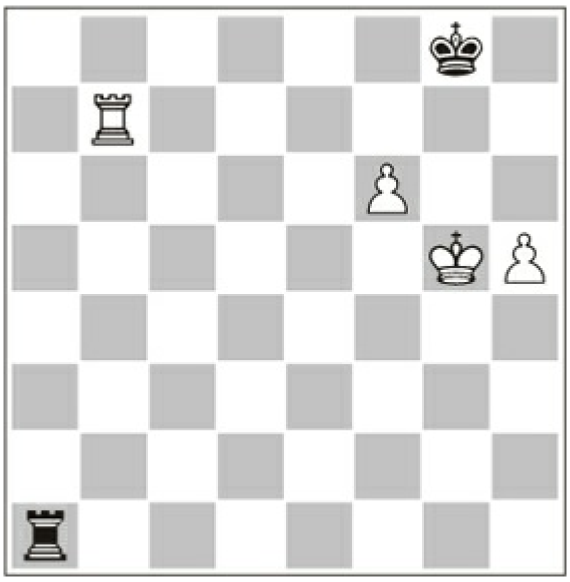
These two examples have shown the more complicated manoeuvres but, if we do not study more positions, we will probably get a wrong impression of other positions. Despite what it seems, and what many books say, a defending king cut off on the back rank does not automatically lose.

Therefore, we are going to complete the picture with three series of diagrams. The analysis is simple if we know the previous examples.

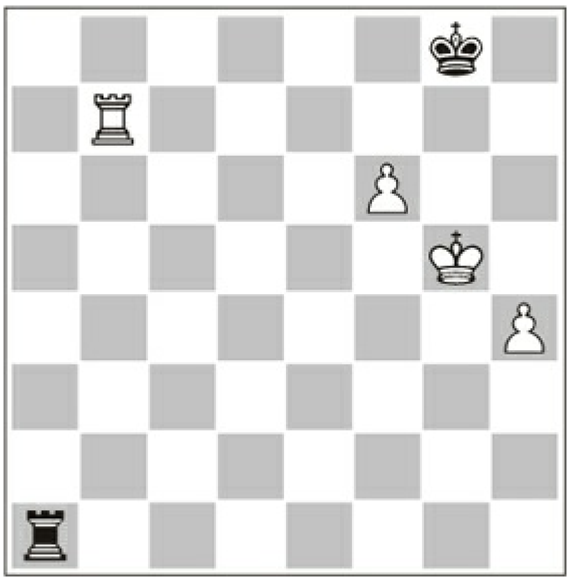
Series about rook and bishop's pawns.
Defending king cut off on the back rank; bishop's pawn on the 6th rank.



White wins, no matter who moves



White to move wins Black to move draws

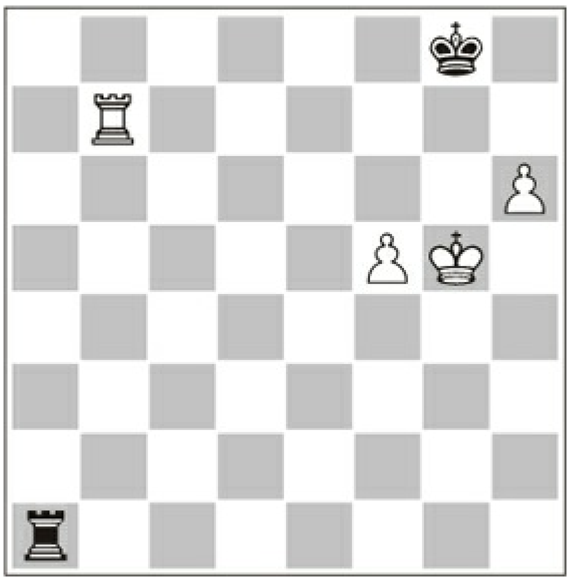


Draw, no matter who moves

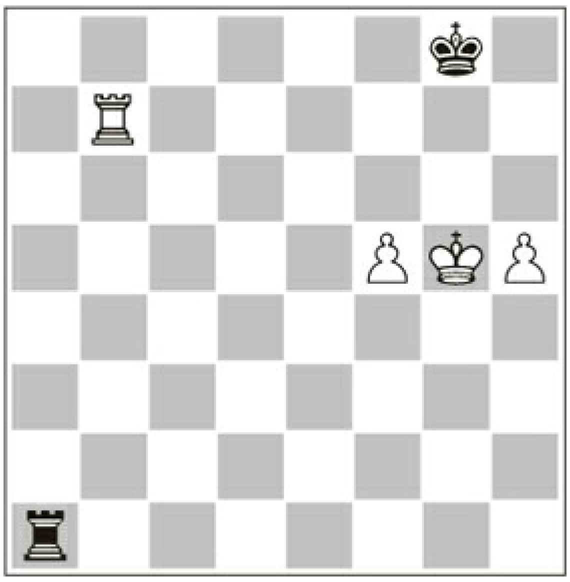
If you check the winning method studied for the first position and the variation commented on the 6th move, you will become convinced that the second and the third are a draw. If the h-pawn is less advanced, it is also a draw.

Conclusion: The bishop's pawn must not reach the 6th rank before the rook's pawn has done so.

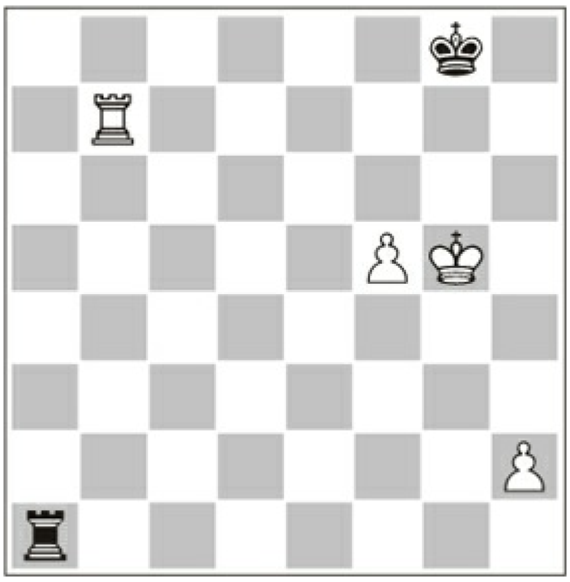
Bishop's pawn on the 5th rank.



White wins Analysed



White wins Same procedure



White wins Same procedure

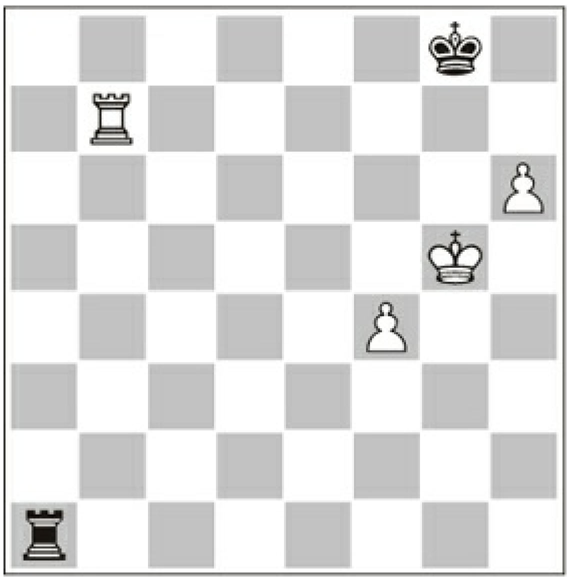
Here the interesting point is that classical defensive procedures fail:

1. Philidor Defence: if Black just waits, White pushes his h-pawn to the 6th rank and then does the same with the f-pawn.
2. K&H Defence presents the same problem.
3. An attack on the h-pawn fails because there is no time to capture it and then go to the long side to deliver distant effective checks.

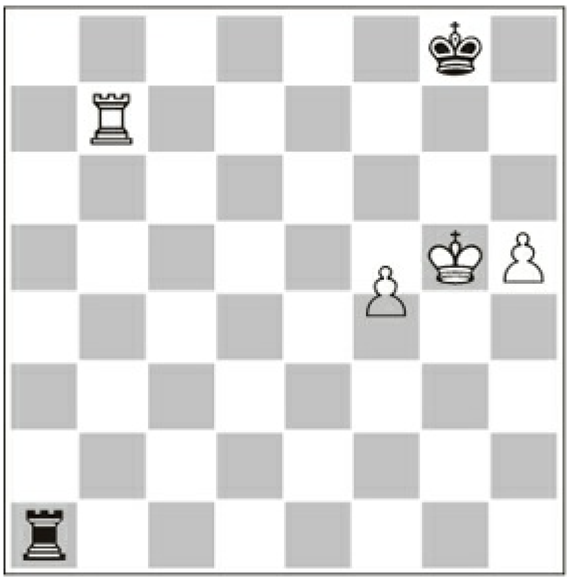
We can draw an interesting conclusion from all this:

Conclusion: When the defending king is cut off on the back rank, a bishop's pawn on the 5th rank is the best winning asset.

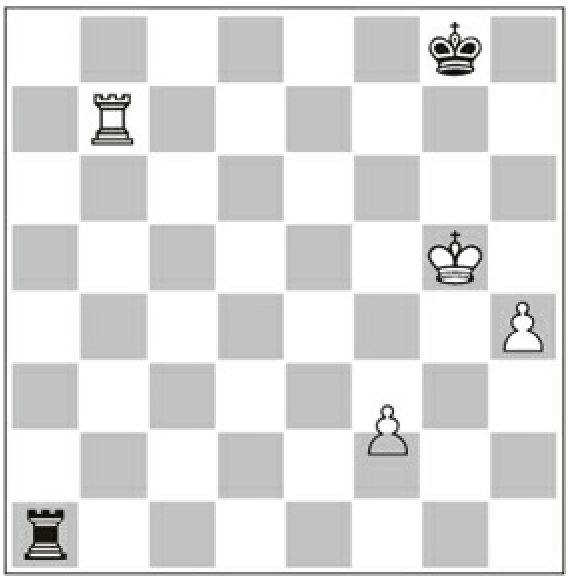
Bishop's pawn on the 4th rank.



White to move wins, Black to move draws



White wins



Draw

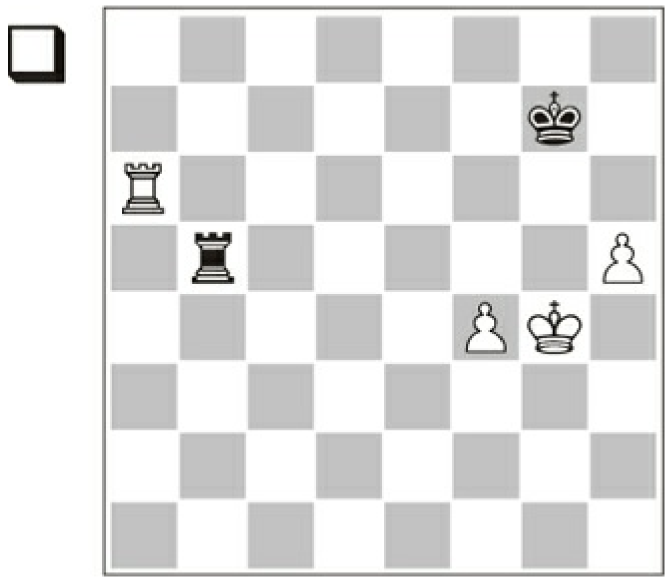
When the bishop's pawn is on the 4th rank, the position of the rook makes a difference. The first diagram is very interesting. As we will see in the next example, this position may arise after a normal sequence of play. Black draws by means of a simple procedure: the rook alternates checks and attacks on the h-pawn (1…Rg1+ 2.Kf6 Rh1). This resource does not work with the h-pawn on the 4th or 5th rank, because White can play 3.f5 (or 3.h5), ignoring the threat to his h-pawn. If the h-pawn has not reached the 4th rank, the defence works again.

ENDING 73 The defensive procedure

When the pawns are less advanced and, above all, when the defending king has not been pushed to the back rank, drawing chances increase.

The next position is taken from the game Gligoric-Smyslov, analysed in several books. It constitutes a perfect outline of the defensive ideas. If you study this example carefully, you should be able to handle this ending in an actual game. As the game progresses, I will point out the most important details.

First point: **The black rook is well placed on the 5th rank, where it disturbs the enemy king's advance.** If both pawns reach the 5th rank, the rook is best placed in the corner (a1 or b1).



Position 11.6

Gligoric – Smyslov

Moscow, 1947

1.Rg6+ (1.f5 Rb1!) **1...Kf7!**

Second point: **If other circumstances are equal, the defending king is better placed on the f-file rather than on the h-file.** However, 1...Kh7?! is not losing either.

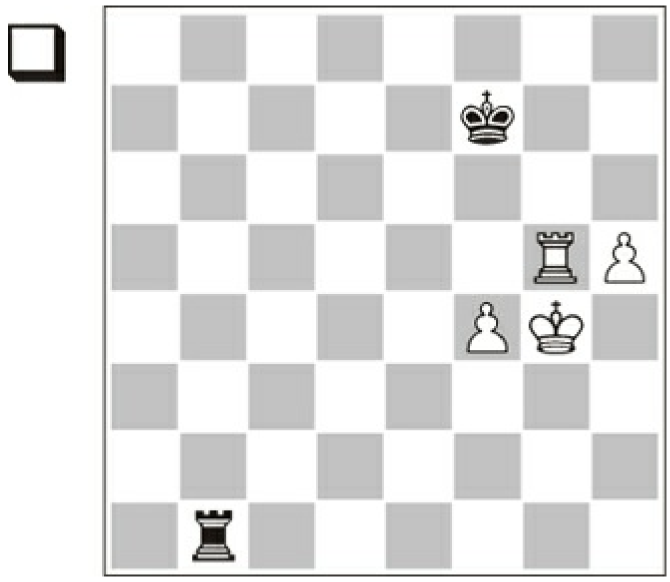
2.Rg5

Driving the black rook off the 5th rank. Instead, pushing the pawns just leaves the white king without a shelter: 2.f5 Rb1! Third point: **As soon as the two pawns reach the 5th rank, the defending rook gets ready to deliver rear checks.** 3.Kg5 Rg1+ 4.Kh6 Rf1 5.Rg7+ Kf6 6.Rg8 Kf7=. White cannot make further progress.

2...Rb1!

Fourth point: **The defending rook stays in the left corner, ready to deliver rear and side checks.**

We have reached a critical situation:



Position 11.7
(analysis diagram)

3.Rc5

The white rook again has plenty of space. White now threatens 4.Kg5 and then to push the black king to the back rank. **In the next few moves, the struggle to avoid being pushed to the 8th rank will be decisive.**

In the previous ending we learnt that the position is lost if the king is pushed to the back rank and the pawns are already on the 5th rank. Pushing the h-pawn is another interesting attempt. The analysis here is quite complex, so in the next diagram we will study this possibility alone.

3...Kf6

The logical answer to oppose White's intentions.

4.Rc6+

Now the rook will not cover 5th-rank side checks.

4...Kg7!

The idea is to avoid king opposition, since in that case the black king would be pushed to the back rank. For example: 4...Kf7? 5.Kg5! (threatening 6.Rc7) 5...Rg1+ 6.Kf5 and the black king has to retreat to the 8th rank, as 6...Kg7? fails to 7.Rg6++–.

5.Kg5 Rg1+! (forced) **6.Kf5 Ra1 7.Rc7+** (7.Rg6+ Kf7=) **7...Kh6** (always avoid the back rank) **8.Re7** (8.Kf6 Kxh5=) **8...Rb1**

The black rook waits in the lower left corner. At the moment the pawn cannot be captured, but White cannot manoeuvre freely either.

9.Re8 (9.Kf6 Kxh5=) **9...Kg7**

9...Ra1, just waiting, was still possible.

10.Re5 Ra1 11.Rd5 Rf1

The only unthematic move played by Smyslov in this ending. This is not exactly a mistake, but keeping the rook in the corner would be the standard procedure: 11...Rb1!.

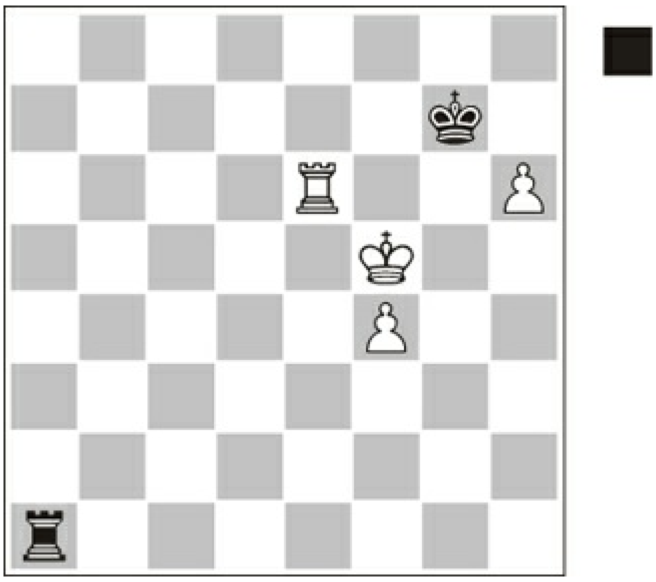
12.Rd4 Ra1

Back to the right defensive spot.

13.Rd6 Ra5+ 14.Kg4 Ra1

It is worth pointing out that Black could return to the starting position with 14...Rb5.

15.Re6 Rg1+ 16.Kf5 Ra1 17.h6+



Position 11.8
(analysis diagram)

At last White decides to commit himself. The Rook + Pawn vs. Rook ending we will reach in a few moves is a theoretical draw.

17...Kh7!

Another important point: when a pawn reaches the 6th rank, the defending king must get in front of it. 17...Kf7?! is also possible, since Black would not lose here with the king on the back rank (as in the previous ending): 18.Rb6 (intending a side check) 18...Ra5+ 19.Kg4 Ra1 20.Kg5 Rg1+ 21.Kf5 and the black king is pushed to the back rank, but after 21...Ra1 (intending side checks) 22.Rb7+ Kg8 23.Kg6 Rg1+ 24.Kf6 Rh1! it is a draw.

18.Rd6 Ra2 (waiting move) **19.Kg5 Rg2+** (hindering the king's advance) **20.Kf6**

This leads to a theoretically drawn ending. 20.Kh5 Rh2+=; 20.Kf5 Ra2=.

20...Kxh6! 21.Ke7+ Kh7

21...Kg7 is also enough to draw, as long as Black is aware of a tactical detail: 22.f5 Re2+ 23.Re6 Rf2! (not 23...Ra2?? 24.f6+ Kh7 25.f7+–) 24.f6+ Kg6 25.Re1 Ra2!= long-side defence.

22.f5 Re2+ 23.Re6 Ra2 (long-side defence) **24.f6**

We have seen a similar position with the king's pawn (**Ending 58**). White threatens 25.Kf8, winning. Black must occupy the back rank.

24...Ra8! 25.Kf7 Kh6!

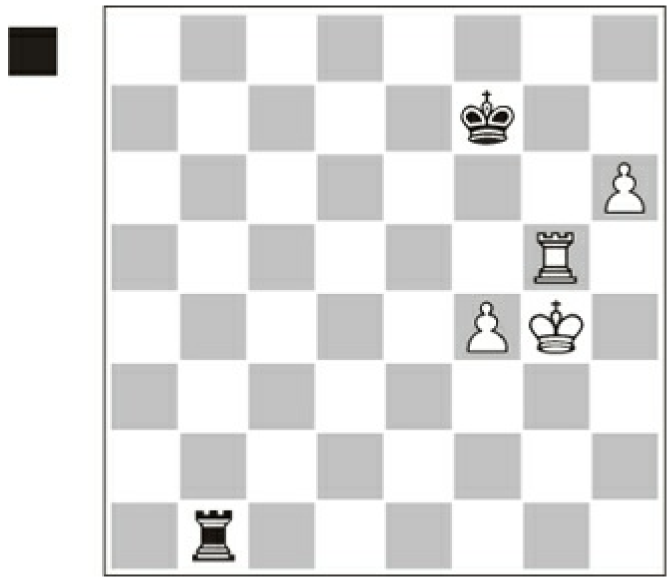
If we compare this position with **Ending 58**, this is the right move here. The difference is that here 25...Rb8 would also draw, because the black rook has more space and can still enjoy distant effectiveness.

26.Re1 Ra7+ 27.Re7 Ra8 28.Rd7 Kh7 29.Rd1 Ra7+ 30.Ke6 Ra6+ 31.Rd6 Ra8 32.Rd4 Kg8 33.Rg4+ Kf8

Draw, at last. An impressive exhibition of endgame skill by Smyslov, which will allow us to draw

some conclusions after studying the following positions.

An important variation. Pushing the rook's pawn



Position 11.9

This position would arise after 3.h6, an alternative in the previous ending. Pushing the h-pawn is quite logical, as the defending king is cut off on the f-file.

3...Ra1!

Now if the white king crosses f5, the rook can still check him. **Black must be patient and wait until the pawn reaches the 7th rank.** Let us see why: 3…Rg1+? 4.Kf5 Rh1 5.Rg7+! (the point!) 5…Kf8 6.Kg6 (as we know, almost all positions where the king is trapped on the back rank are lost) 6… Rg1+ 7.Kh7! Rf1 8.Ra7! (8.Rg4 Kf7) 8…Rxf4 (the rook captures the pawn, but from this unfortunate position it cannot prevent the h-pawn from promoting) 9.Kg6 Rg4+ 10.Kf6! Rf4+ (10…Kg8 11.Rg7+!+–) 11.Kg5 Rf1 12.Ra8+ Kf7 13.h7+–.

4.Rg7+

The most interesting attempt. **4.Kf5** Ra5+= makes no progress and **4.h7** Rg1+! – this time the h-pawn is lost and White cannot reach a winning Rook + Pawn vs. Rook ending: 5.Kf5 Rh1=. **4.Rh5** is the other challenging possibility, but there is only one possible answer: the black king has to block the threatening h-pawn. 4…Kg8 5.f5 Kh7 (the king's mobility is restricted here but the threat to the h-pawn hinders White's activity) 6.Rh3 Rg1+ 7.Kh5 Rf1 8.Kg5 Rg1+ 9.Kf6 Ra1! 10.Re3 Ra2 11.Re6 Kxh6! reaching a position already analysed in a previous ending.

4...Kf6 5.Rc7

Threatening Rc6 and Kg5, pushing the black king to the back rank.

5...Kg6

Or **5…Rg1+!?** 6.Kf3 Rh1=; or even **5…Rh1?!** 6.Rc6+ Kf7 7.Kg5 and the black king is forced to the back rank but the ending is still drawn, as we saw in the analysis to move 17 in the previous example.

6.h7 Rh1!

6…Rg1+? 7.Kf3 Rh1 was also considered a draw, but the Nalimov Tablebases showed that White can win with very accurate play. You do not need to know this variation, but it is instructive: 8.Ke4 Rh5 9.Ra7 Rh1 10.Rd7 (10.Kd5 Rd1+ 11.Ke6 Re1+ 12.Kd6 Rd1+ 13.Ke7 Kxh7=) 10…Rh5 11.Rc7 Rh1 12.Kd5 Rd1+ 13.Kc6 Rc1+ 14.Kd7 Rd1+ 15.Ke8 Ra1 16.Rd7 Re1+ 17.Re7 Ra1 18.Kf8 Rh1 19.Kg8+–.

7.Kf3

Apparently, the only way to make progress. Black is not threatening the h7 pawn, but still the white rook is tied to its defence. **7.f5+** Kf6= or **7.Rc5** Rg1+, drawing easily.

However, the waiting move **7.Rb7** would force Black to worsen the position of his rook: 7…Rh2. Now after 8.Rb5 the pawn cannot be captured, but Black still has 8…Kg7! and White cannot make further progress; any attempt would result in the capture of the h7 pawn. 9.Rg5+ (9.Kg3 Rxh7=; 9.f5 Rxh7=) 9…Kh8! 10.Rb5 Rh1=.

7...Kf5!

The black king has the white pawn within range and the position is an obvious draw. White can only break the status quo by giving up a pawn and the resulting ending is always a draw.

8.Rf7+ Kg6 9.Rb7 Kf5 10.Kg3 Kf6 11.Kg4 Kg6 No progress.

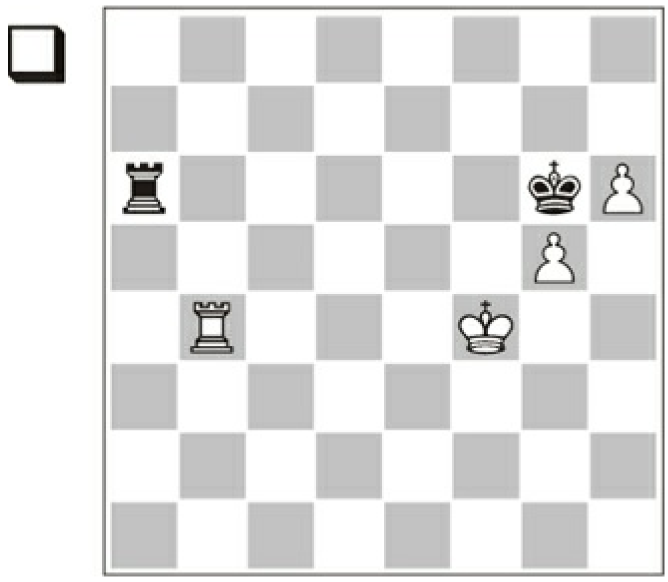
As we have seen, the variations are complex and the examples analysed are not, of course, definitive. We have simply gathered some resources to defend these positions in actual games. Let us summarise them briefly:

1. **The king should avoid being trapped on the back rank, as this usually leads to a losing position.**
2. **The rook is well placed on the 5th rank to hinder the white king's advance, but usually the best policy is to keep the rook in the corner, ready to deliver side and rear checks.**
3. **The king must wait on g7 or f7 and, if checked along the g-file, the best place for him is the f-file if all other circumstances are equal.**
4. **When a pawn reaches the 6th rank, the defending king must get in front of it.**

Third scenario

ENDING 74	Blocked connected pawns

This comes as a real surprise the first time one hears of it. OK, two doubled pawns may be not enough to win, and two isolated pawns, two close pawns can be successfully stopped but… two connected pawns! They should win! It looks ridiculous. However, it is quite common that the defending king gets in between the pawns, blocking them. Kling and Horwitz had already studied this position with rook and knight's pawns in 1851. Actually, once the defending side sets up the blockade, there is not much to be done. Here the connected pawns are far less dangerous than the drawish rook's and bishop's pawns.



Position 11.10

1.Rd4 Rb6 2.Rd8!

First White has to get the black king out of his strong position: the rook will assume this task.

2...Rb4+ 3.Ke5

If the white king moves back, Black can deliver more checks or play the same as in the game.

3...Rb7!

Some more checks were also possible, but the easiest way is to attack the g-pawn. At the same time, the rook controls two important squares, g7 and h7.

3...Kxg5?? loses on the spot to 4.h7+–.

3...Rg4? also loses, though this is more difficult: 4.Rg8+ Kh7 5.Kf5!+–.

With **3...Rb5+?!** Black just complicates his life: 4.Rd5 Rb7 5.Ke6 and, despite the white king's progress, Black can still draw: 5...Rb6+ 6.Ke7 Rb7+ 7.Rd7 Rb5 (threatening Rg5) 8.h7 Rb8!=.

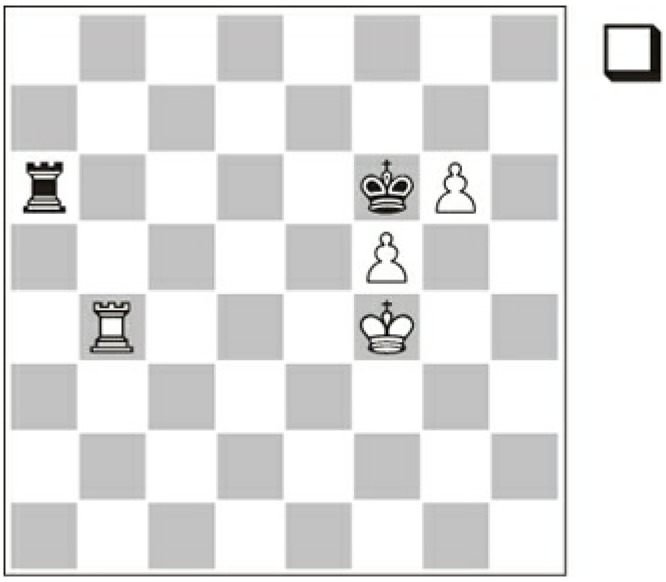
4.Rg8+ (4.Kf4 would be a repetition) **4...Kh7 5.Re8 Kg6**

Here we are again. Black had a little trick to force the draw: 5...Rb5+ 6.Kf6 Rxg5!.

6.Kf4 Rb4+ 7.Ke5 Rb7=

Nevertheless, if we move the whole position towards the centre of the board, White can break the blockade.

Central connected pawns



Position 11.11

Here White can force a winning pawn endgame.

1.Re4 Rb6 2.Re6+!

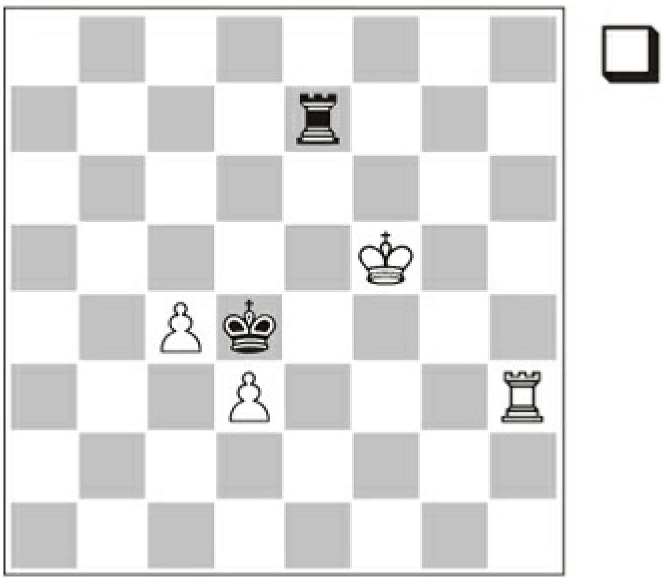
Quite simple. You just have to take into account the position of your king (for instance, if the king were on g4 the ending would be drawn).

2...Rxe6 3.fxe6 Kxe6 4.Kg5+–

This example may lead you to think that this blockade only works near the edge of the board, but it is not so.

Another example of central pawns

We close this chapter with one example where the blockade succeeds against central pawns, but just because the white king is cut off.



Position 11.12

1.Kf6 Re1 2.Rg3 Re2 and clearly White cannot make further progress.

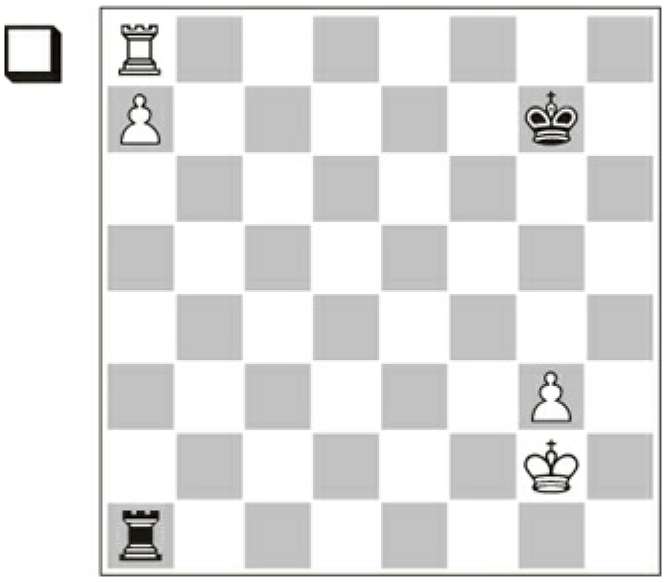
This was a very simple example that could give us a quite widely-applicable idea.

Two connected pawns usually win. Some difficulties arise for the stronger side when the defending king gets in between the pawns. However, in order to draw, the defending side needs more favourable circumstances: the edge of the board is near, or one of the white pieces is passive.

Fourth scenario

ENDING 75	**Attacking rook stuck in front of the 7th-rank pawn**

This is perhaps the best-known drawing scenario. Although most of us have seen it in our games, it still comes as a surprise. If a passed pawn reaches the 7th rank and the attacking rook is in front of it, the rook becomes completely passive and then the stronger side finds great difficulties in turning such a large material advantage (two pawns) into victory.



Position 11.12

The best-known case involves a rook's pawn on the 7th rank, but it is not the only possibility.

The analysis is quite easy: the black pieces just occupy their ideal positions (rook on a-file and king on g7 or h7) and wait. The rook must be ready to deliver checks if the white king arrives to defend the a-pawn.

A second pawn, as here the g-pawn, does not change the result, as it cannot be used to take the black king out of the safe zone.

1.Kf3 Ra2 2.Ke4 Ra1 3.Kd5 Ra2 4.Kc6 Ra1 5.Kb6 Rb1+ 6.Kc6 Ra1 7.g4 Ra2 8.g5 Ra1 9.g6 Ra2

Of course, Black does not want to capture the pawn at all.

10.Kb7 Rb2+=

We can easily observe that, if the second white pawn was on the h-file, White could not win either. In both cases, the pawn stuck on the 7th rank could be on any other file.

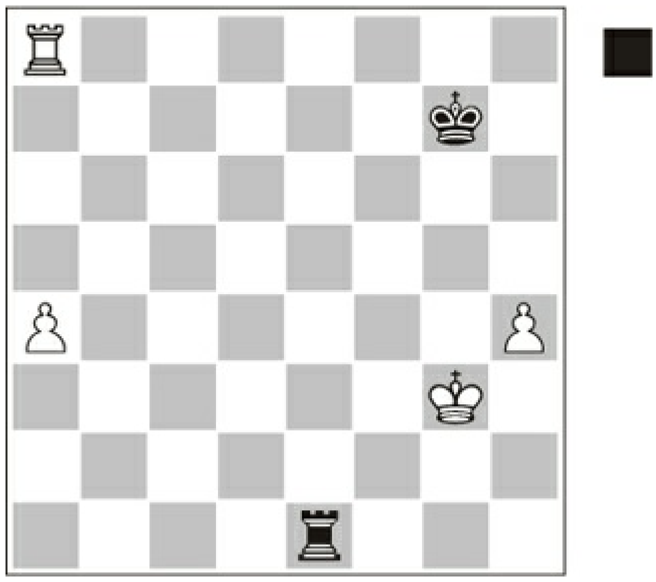
Finally, the ending would be won if the second white pawn were on any other file, for instance the f-file. White would win by just pushing the pawn.

Conclusion: Think twice before you push a pawn to the 7th rank with your rook in front of it. It can ruin a winning position even if you have more pawns.

Fifth scenario

ENDING 76 — Vancura Defence against 2 pawns

This is probably the least-known scenario, though the most common in practice.



Position 11.14

There are some drawing positions involving a- and h-pawns, the most important one being an extension of the Vancura Defence.

1...Re4!

The only move to draw. This move is very important: Black adopts a Vancura defensive set-up and prevents the white rook from coming out of its passive position in front of the pawn.

From now onwards, defence is quite easy, as White cannot really make further progress. On the other hand, if Black adopts a wrong defensive set-up, White wins rather comfortably. If you quickly check your database, you will see that the latter is the most frequent scenario in practice.

1...Ra1? 2.Kf4 Kh7 3.Ke5 Kg7 4.a5 Kh7 5.a6 and, as we know from **Ending 66**, White wins even without the h-pawn.

2.a5

Or 2.h5 Kh7 3.Kf3 Rh4 4.Ke3 Rxh5 (Black captures the pawn and has time to set up the correct defence) 5.Kd4 Rg5 6.Kc4 Rg4+! (only move!) 7.Kb5 Rg5+ 8.Kb4 Rg4+ 9.Kc5 Rf4 – Vancura.

2...Re5!

Keeping the Vancura Position.

3.Kf3 Rh5 4.Kg3 Rc5 5.a6 Rc6! 6.Kf4

As soon as White pushes the a-pawn one step further, the black rook will be transferred to the rear of the pawn and we will reach **Ending 75**.

6...Kh7 7.Ke5 Rb6 8.Kd5 Rg6 9.Kc5 Rf6 10.Kb5 Rf5+! 11.Kb6 Rf6+!

When the white king moves far from the a-pawn, the series of checks may end. There is no way to make progress.

12. Pawn endings

After many chapters, we come back to pawn endings. Now we will deal with positions where there is more than one pawn on the board.

Despite the limited material, pawn endings are usually quite complex and demand a great amount of calculation, to the extent that the advice of some players is to avoid, if possible, pawn endings for the realisation of the advantage. The reason is that it is easy to miss a tactical subtlety there. This old fox's advice is supported by statistics: pawn endings present the lowest draw rates.

Another outstanding feature is the low number of important theoretical positions. On the other hand, there are many important themes to know and master. Therefore, this is the only chapter where we will analyse positions with many pawns on the board, as that is the only way to illustrate in an appropriate way certain topics I consider basic.

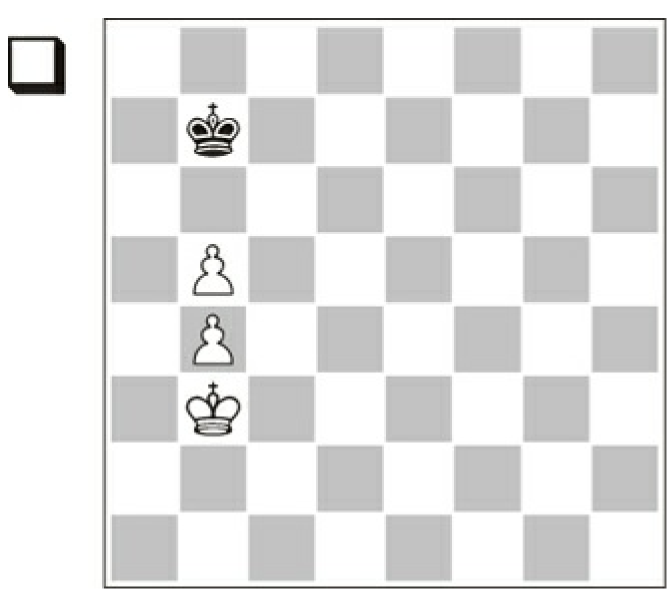
Section 1. King + 2 pawns vs. King

We already know what happens with a single pawn. Obviously, a king with two pawns almost always wins (95%, according to our stats). This figure would be even higher if we left aside those cases where the capture of one of the pawns is forced.

We can distinguish three scenarios:

1. Connected pawns. Here both pawns defend each other and then the king approaches to give them support. The ending is always won unless a pawn is captured. The only important thing to know is this: if we have a rook's pawn on the 7th rank, we have to give it up in order to promote the knight's pawn.
2. Doubled pawns (**Ending 77**)
3. Isolated pawns (**Ending 78**)

ENDING 77	Doubled pawns



Position 12.1

The most interesting case in this section. If we have rook's pawns we know the important thing is not the number of pawns but the position of the king. Let us see what happens with other pawns.

1.Kc3!

The standard (and easy) procedure: to use the less advanced pawn to waste a move when the critical position (king opposition on the 6th rank) arises. Here White follows this procedure, but

he has to be careful due to two special circumstances worth noting:

A. We are dealing with knight's pawns, which usually involves stalemate motifs.
B. The pawns are together, which complicates the defence of the more advanced pawn. The following variation illustrates this idea: 1.Kc4?? Kb6!=.

1...Kc7 2.Kd4 Kb6 3.Kc4 Kc7 4.Kc5 Kb7 5.b6 Ka6!

Trying to trouble White as much as possible. Direct play would go as follows: 5...Kb8 6.Kc6 Kc8 7.b7+ Kb8 8.b5! (the fastest way to win provided that White gives up the most advanced pawn on the next move to gain the key squares for the other pawn. The only other move to win is 8.Kc5! with the same idea) 8...Ka7 9.b8Q+! (but not 9.Kc7?? stalemate) 9...Kxb8 10.Kb6 with a trivial win according to **Ending 3**.

6.b7!

6.Kc6?? stalemate.

6...Kxb7 7.Kb5 1-0

It is easy to see that, if we cannot lose a move with the less advanced pawn, it is impossible to win. This situation arises if the pawn is on the 5th rank. If you have doubts, I recommend that you check it as an **Exercise**.

Conclusion: Two doubled pawns always win, except in these two situations:

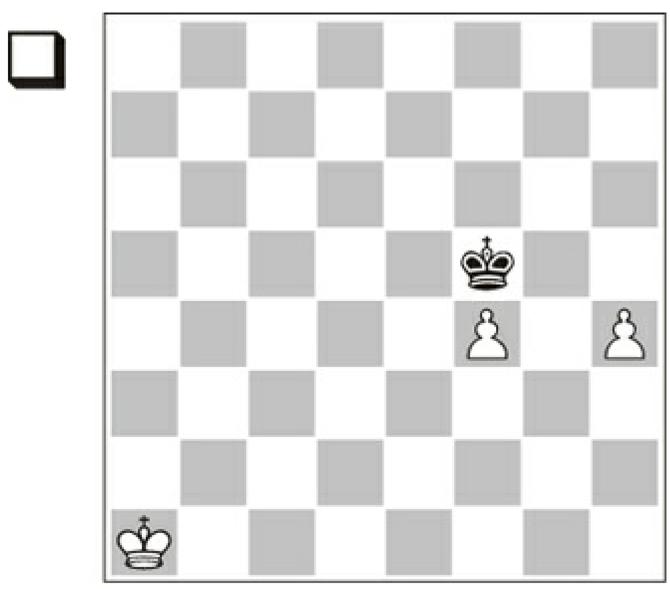
1. **Rook's pawns.**
2. **The less advanced pawn is on the 5th rank.**

ENDING 78 — Isolated pawns

Here the winning chances are great, too. The only situation worth studying occurs when the enemy king threatens the pawns. However, usually the pawns have one of these resources at their disposal:

1. Mutual defence: one pawn threatens to promote to avoid the capture of the other one.
2. Delay the capture of one pawn until the strong king arrives to defend them and reaches the key squares of the other one.

Mutual defence



Position 12.2

This is the first resource: **Two pawns separated by one file can defend each other as long as the king does not attack the more advanced one.**

1.h5!

Thus the h-pawn prevents the capture of the f-pawn and gives the white king time to come near.

1...Kf6

If the king captures the f-pawn, he will be outside the square of the h-pawn.

2.Kb2 Kg7

The king is about to capture the advanced pawn, but…

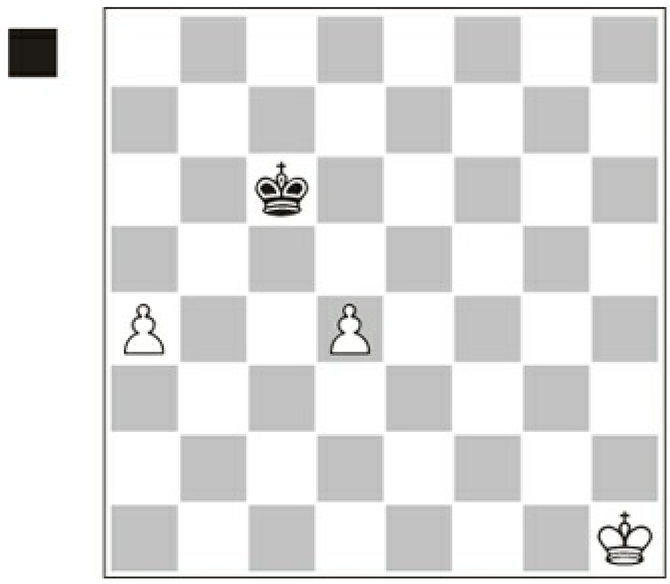
3.f5 Kh6 4.f6! 1-0

Here we have the same situation as on move 1. The f6 pawn prevents the capture of the h5 pawn. Now White just has to bring the king near and promote one pawn. This is a very useful procedure, especially when there are more pawns on the board.

If the pawns are separated by more files, the situation becomes more interesting, assuming, of course, that there are more pawns on the board. Otherwise, it is almost impossible that the stronger side's king does not manage to secure promotion of one pawn.

Delaying the capture

It is Black's turn. However, there is **not a single square on the whole board** from which the white king fails to support his pawns in time. Let us see a possible sequence of play:



Position 12.3

1...Kd5 2.a5!

Preventing the capture of the central pawn.

2...Kc6 3.Kg2 Kb5 4.Kf3 Kxa5 5.Ke4 Kb6 6.Kd5 Kc7 7.Ke6+–

The white king has reached one of the key squares of the d4 pawn.

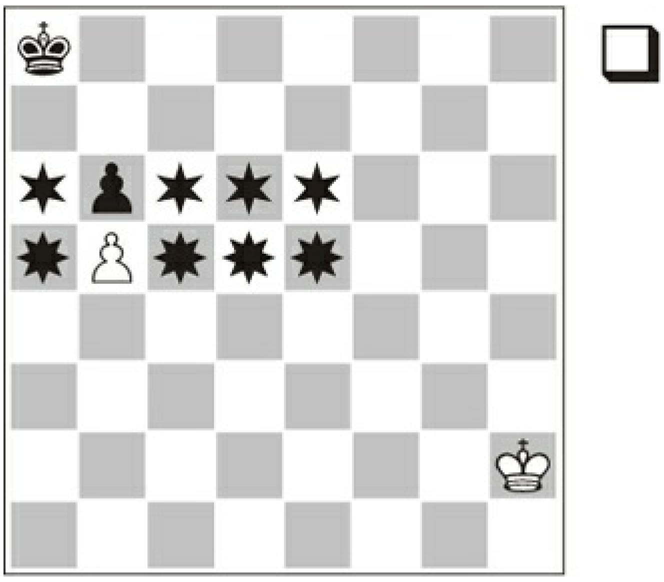
Therefore, the most important scenario arises with more pawns on the board. We will come back to this idea when we deal with the floating square (**Ending 88**).

Section 2. King + Pawn vs. King + Pawn

When both players have one pawn, the situation is more complicated. You may think that these endings are drawish, but actually it is not so. If we look at the statistics, we find that 45% of the games are decided. We will divide our study into three sections, each of them dealing with a completely different situation: Blocked pawns, pawns on adjacent files and passed pawns.

In theory this is the most interesting case, because there are useful rules for playing these endings and they can be (carefully) applied to endings with more pawns. Blocked pawns also have key squares. The king who manages to occupy one of them, will capture the enemy pawn, which does not necessarily imply winning the game. The key squares are on the same rank as the pawn: 3 on the left and 3 on the right.

ENDING 79	**Blocked pawns. Key squares**



Position 12.4

In this position the key squares for the black pawn are c6, d6 and e6. We do not count a6, as there is no way to get there. For the white pawn: c5, d5 and e5. Who do you think will arrive first at the key squares of the enemy pawn? Just count: both kings move forward.

1.Kg3! Kb7 2.Kf4 Kc7 3.Ke5 Kd7 4.Kd5

Once again, White can advance thanks to the opposition, and so his king will occupy the key squares.

4...Kc7 5.Ke6

Here it is. Now we will see the easy and forced sequence to capture the pawn.

5...Kc8 6.Kd6 Kb7 7.Kd7

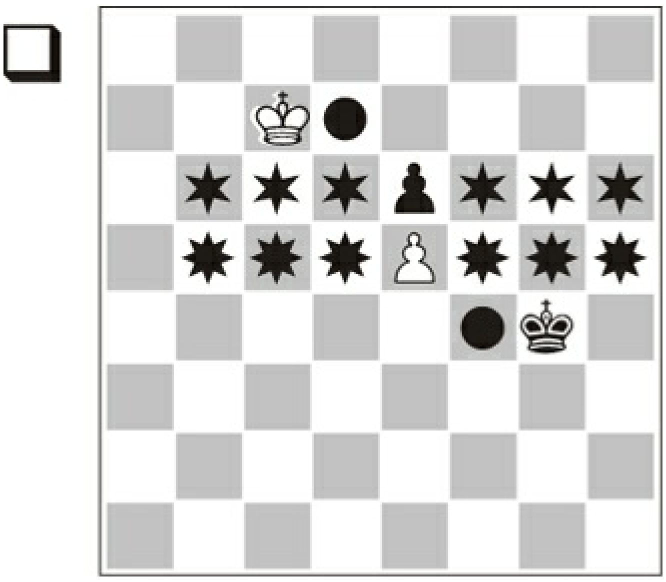
The white king will capture the pawn and in doing so he will occupy one of the key squares to promote the pawn, thus securing promotion.

7...Kb8 8.Kc6 Ka7 9.Kc7 Ka8 10.Kxb6 and White wins, as we have already seen.

This idea of occupying key squares to capture a blocked pawn is extremely important, as it can be applied when there are more pawns on the board. Whenever the base of the pawn chain is blocked by an enemy pawn, the king will be able to capture it if he occupies one of the key squares of that pawn.

Reserving squares to attack

When both kings can occupy the key squares for their enemy pawns, a mutual zugzwang may arise. The first king to attack the enemy pawn must reserve (if he can) the important square for attack and defence, which in this position is d6 for White and f5 for Black.

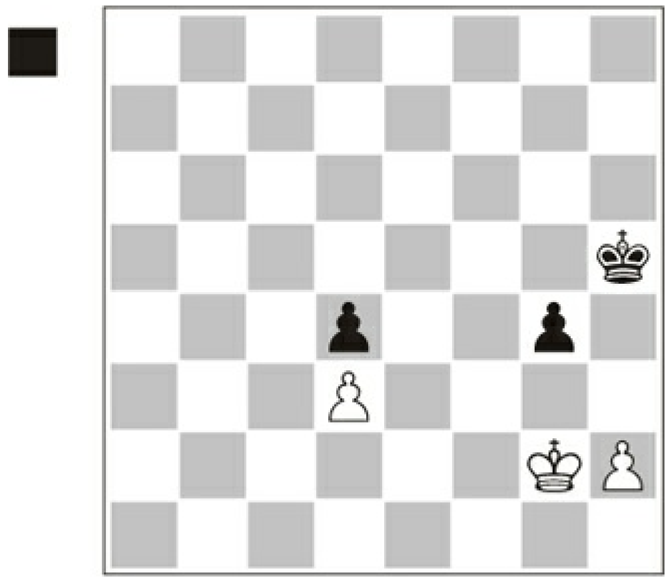


Position 12.5

1.Kd7! (1.Kd6?? Kf5!–+ (zugzwang) and Black wins) **1...Kf5 2.Kd6!** (now the mutual zugzwang favours White) **2...Kg6 3.Kxe6 1-0**

With more pawns on the board

I have stated on several occasions that one of the advantages of knowing these endings is that some of their rules can be applied to more complex positions. Here, dealing with key squares for blocked pawns, it is more important to know how to apply the rules to positions with more pawns than to know the theoretical ending as such. Therefore, I will now show you a simple example:



Position 12.6

Were White to play, he would draw after 1.Kf2, taking care to play Kg2 against …Kh4 and Kf2 against …Kf4. If it is Black's turn, his king gets a dominant position and forces a favourable pawn exchange. After getting rid of the non-blocked pawn, Black captures the blocked pawn and wins. The procedure is very simple:

1…Kh4 2.Kf2 Kh3 3.Kg1 g3 4.hxg3

4.Kh1 would be an interesting attempt, but 4…Kg4 leads to the same conclusion.

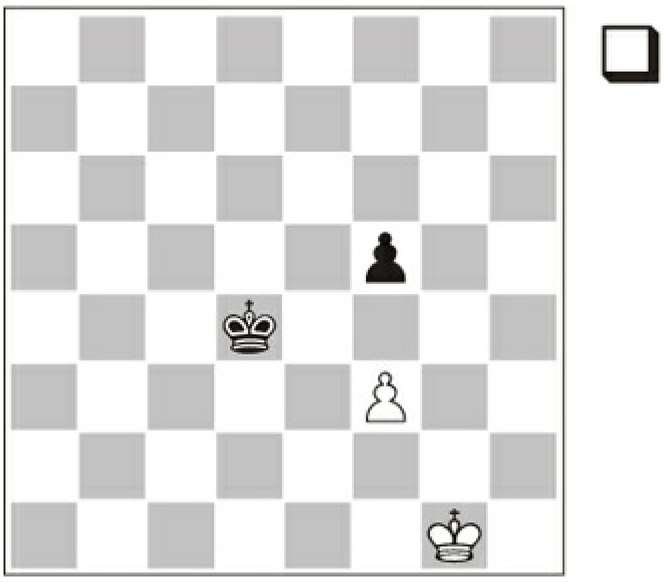
4…Kxg3

The black king has reached the key squares for the d3-pawn, so he will capture it and promote his pawn.

ENDING 80 Less advanced (or rook's) blocked pawns

Occupying a key square does not guarantee victory. Remember that it only leads to the capture of the pawn; if the resulting King + Pawn vs. King ending is drawn, it is impossible to win. Of course, this is more likely to happen with rook's pawns, but it may also happen with other pawns, when they have not crossed the middle of the board.

The following example is quite simple, but players with poor endgame technique usually get it wrong.



Position 12.7

These pawns are not blocked yet, but they will be soon. The black king has a dominant position, so the white pawn is lost. But, as I said before, losing the pawn does not imply losing the game. Now we will see why: after capturing the white pawn, Black still has to promote his.

1.f4!

The only move to save the game. Now the black king must capture the pawn on f4, which is not one of the key squares to promote the f5 pawn. Therefore, White has time to force a drawn King + Pawn vs. King ending.

Instead, 1.Kf2?? would be a terrible and rather common blunder, provoked by our instinctive desire to defend the pawn. 1…f4!. The black pawn moves immediately to the 5th rank. Thus, when the black king captures the white pawn, he will already occupy one of the key squares to promote. 2.Ke2 Kc3 3.Kf2 Kd3 4.Kg2 Ke3 5.Kg1 Kxf3 (capturing the pawn on a key square) 6.Kf1 Ke3 7.Ke1 f3 8.Kf1 f2–+.

1...Ke4 2.Kg2!

Waiting to take the opposition when the black king captures the pawn on f4. 2.Kf2?? would be a terrible mistake: 2…Kxf4 and the black king reaches the key squares.

2...Kxf4 (2…Ke3 3.Kf1 does not change things) **3.Kf2**

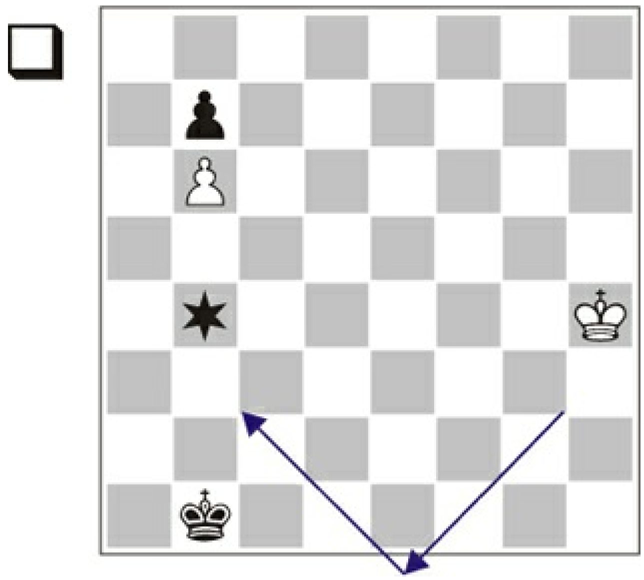
Black has captured the enemy pawn, but will not be able to promote his.

3...Ke4 4.Ke2 f4 5.Kf2 f3 6.Kf1 Ke3 7.Ke1 f2+ 8.Kf1 Kf3 ½-½

Cases like this, when the king captures the pawn but the resulting ending is not won, can be really complex. Then the king manoeuvres previous to the capture of the pawn are very interesting. Nevertheless, if we have fully understood the king’s multiple routes (see Introduction), everything is clear.

Manoeuvres previous to the capture of the pawn. The king’s multiple routes

When the pawns are not so advanced, or we are dealing with rook’s pawns, king manoeuvres prior to the capture of the pawn are far more interesting than the resulting ending. Here both kings try to shoulder their opponent away, exploiting a peculiarity of the chessboard we called in the introduction ‘the king’s multiple routes’.



Position 12.8

In this position, White will not be able to capture the black pawn, so he will have to think about defence, which implies reaching the key square b4 the moment the black king captures the b6-pawn.

Since Black needs 5 moves to capture the pawn and White needs 6 to reach b4, we can conclude that White will succeed if he is to move. However, this could be a rash conclusion, as not all routes work the same.

As we know from the introduction, the white king has 141 possible routes from h4 to b4. However, only one works in this position! Of course, the right route is the farthest from the one chosen by the black king.

1.Kg3!

1.Kg4? Kc2! (the black king has multiple routes as well, and so he chooses one to shoulder away his counterpart) 2.Kf3 Kd3! (forcing the white king to lose a tempo) 3.Kf2 Kc4 4.Ke2 Kb5 5.Kd3 Kxb6 6.Kc3 Kb5–+.

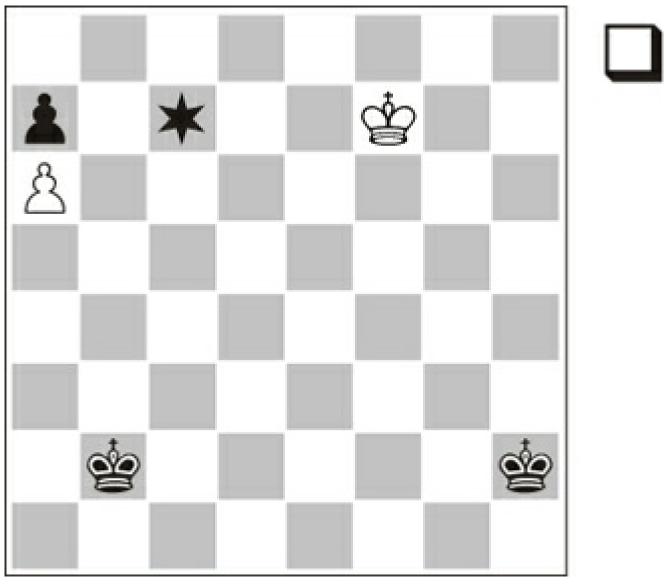
1...Kc2 2.Kf2! Kd3 3.Ke1 Kc4 4.Kd2 Kb5 5.Kc3 Kxb6 6.Kb4 and White succeeds.

Now it is easy to see that, had the white king been on h5 in the starting position, White would be lost because, though there would be multiple routes to reach b4 in 6 moves, none of them would have worked. On the contrary, from h1 the white king would comfortably reach his goal, despite there being fewer routes available. One last remark: if the black king were on f1, White would lose. If all this is clear for you, then you have a good understanding of the king's routes and the shouldering-away technique. If you have doubts, it is worth checking everything as an **Exercise**.

Rook's pawn

Here it is easier for the defending side to reach the key squares, as trapping the strong king on the rook file is enough to draw.

Do not be scared by the sight of two black kings. Let us compare two situations. First, imagine the position with the king on b2. The white king needs 5 moves to capture the a7 pawn and the black king has to reach c7 on that moment. Also 5 moves, but White can shoulder away the black king.



Position 12.9

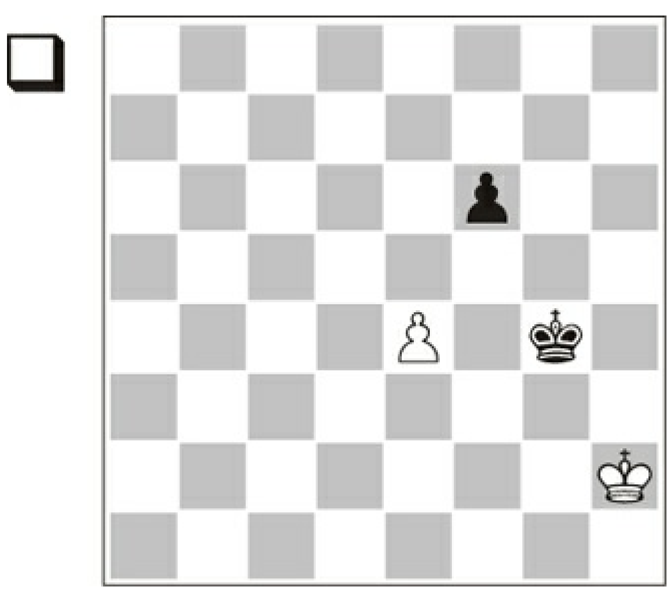
1.Ke6
1.Ke7? would be wrong: 1...Kc3 2.Kd7 Kd4 3.Kc7 Kd5 4.Kb7 Kd6 5.Kxa7 Kc7= and the black king succeeds.
1...Kc3 2.Kd5!
The black king has to lose a tempo now.
2...Kd3 3.Kc6 Kd4 4.Kb7 Kd5 5.Kxa7 Kc6 6.Kb8+– the rest is elementary.
Now imagine the black king on h2. Apparently, he is farther off than before, and has just one route to c7. An **Exercise** for you: check that Black can draw despite all that. One clear path is worth many blocked routes!

Conclusion: (Endings 79 and 80)

1. **When the pawns are blocked, the first king to reach the key squares for the enemy pawn will capture the pawn. Key squares are: 3 on the left and 3 on the right of the pawn.**
2. **If the stronger side has the pawn on the 5th rank (or further advanced) and captures the enemy pawn, the ending is won, unless we are dealing with rook's pawns. If the blocked pawns are less advanced or they are rook's pawns, the defending king can draw if he manages to reach the right square.**

ENDING 81	Pawns on adjacent files

Giving up the pawn to change key squares



Position 12.10

When the pawns are on adjacent files, it is quite easy to calculate the consequences of the capture or the defence of the pawns. You just need to know one interesting resource.

Here the white pawn is lost and, when the black king captures it, he will occupy one of the key squares, thus promoting. Can White be saved?

1.e5!

Yes!!! By means of this pawn sacrifice, White manages to change the key squares: now, instead of e4, f4 and g4, the key squares are d3, e3 and f3, and the black king cannot reach them. Other moves just lose:

1.Kg2? Kf4 2.Kf2 (now 2.e5 fails, as the black king can capture the pawn: 2…Kxe5 3.Kf3 Kf5–+) 2…Kxe4 and Black wins because his king has occupied the 5th-rank key squares.

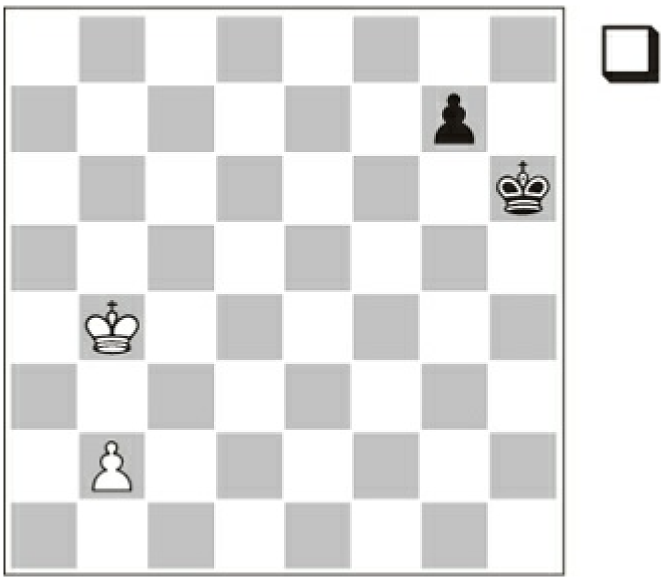
1...fxe5 2.Kg2 Kf4 3.Kf2

Now the black king is unable to occupy the key squares, therefore the ending is drawn.

ENDING 82 — Passed pawns. Dual-purpose king manoeuvres

Most positions where both sides have passed pawns are simple, as they are mainly a pawn race. However, there are some quite interesting situations when the kings must manoeuvre to support their own pawn and at the same time hinder the opponent, and then the variations are far from evident.

In these endings we find an important motif, also recurring in positions with many pawns on the board: dual-purpose king moves. Once we grasp this idea, it should be easy to calculate these endings accurately, just paying attention to each player's goals.



Position 12.11

Duras, 1905

Let us see this famous composition by Duras where we can observe many dual-purpose moves.

1.Kc5!

The key move. The only way of finding it is to analyse the different alternatives and to pay attention to both White's goals:

A. Keeping the king inside the square of the g7 pawn.
B. Shouldering the black king away from the white pawn.

Other moves do not work: 1.Kc4? Kg6 2.b4 Kf7 3.b5 Ke7=.

1...Kg6

An undesirable (as the king blocks his own pawn) but necessary move to prevent the white pawn's promotion. Other moves fail: 1…g5 2.b4 g4 3.Kd4+– and the black king cannot enter the square of the enemy pawn, whereas the white king has managed to do so.

2.b4 Kf7 3.b5 Ke7

The black king is still inside the square of the white pawn and now threatens to get in front of it,

thus securing the draw.

4.Kc6!

The right move, and the consequence of 1.Kc5; the white king shoulders the black king away from the white pawn.

4...Kd8

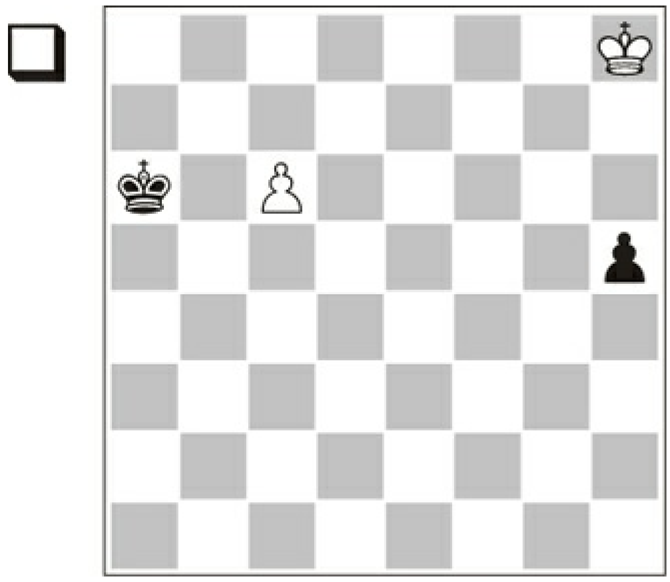
The most stubborn; 4...g5 5.b6+– is elementary.

5.Kb7!

Necessary to block the black king's way. The white king obstructs his own pawn and will need another tempo to push it, but White will gain back time because his pawn will queen with check. That is why accurate calculation was necessary from the beginning. Now it is just a pawn race.

5...g5 6.b6 g4 7.Ka7 g3 8.b7 g2 9.b8Q+ and White wins.

Réti's study

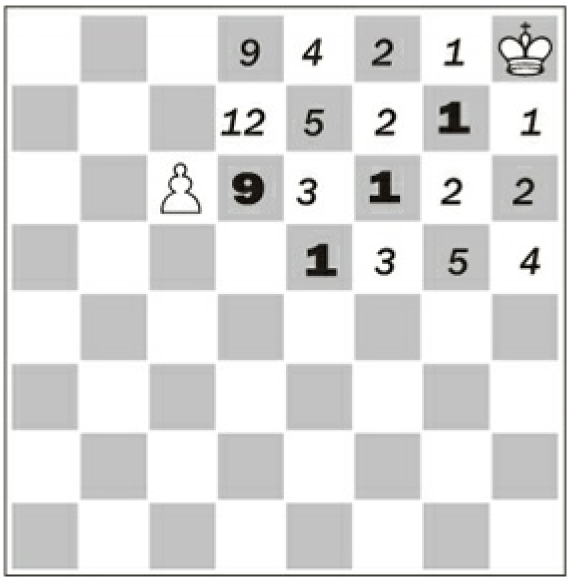


Position 12.12

Réti, 1921

Although Richard Réti created several outstanding endgames, this position has gone down in history as Réti's idea due to the powerful combination of simple means and amazing result. These features have turned it into the classic example to illustrate two related ideas: 1) 'Dual-purpose king manoeuvres' and 2) 'King's multiple routes'. I have seen many players ask whether the statement or the position were correct, when they did not know this study. Once you get it, however, it is easy to apply this idea to many other positions.

The white king is clearly outside the square of the h4-pawn; on the other hand, the white pawn is clearly controlled by the black king. Nevertheless, White can draw by means of a dual-purpose king manoeuvre. The two goals are clear: getting inside the square of the black pawn and supporting the white pawn. Note one important detail: if the white king reaches d6, his pawn will promote. To avoid promotion, the black king will have to spend **TWO** tempi, exactly the same as the white king needs to get into the square of the black pawn. Now we must find the correct route. The concept of the king's multiple routes comes in handy here:



Here, the figures represent the number of different routes the king may use to arrive at this square in the minimum number of moves. According to this, the white king has 9! different routes to reach d6, but only one (that marked in bold) allows him to come nearer the square of the black pawn. Of course, this is the correct route.

1.Kg7! h4 2.Kf6 Kb6

Black has to spend the first tempo on defence; instead, 2...h3 3.Ke7 h2 4.c7= and both pawns promote.

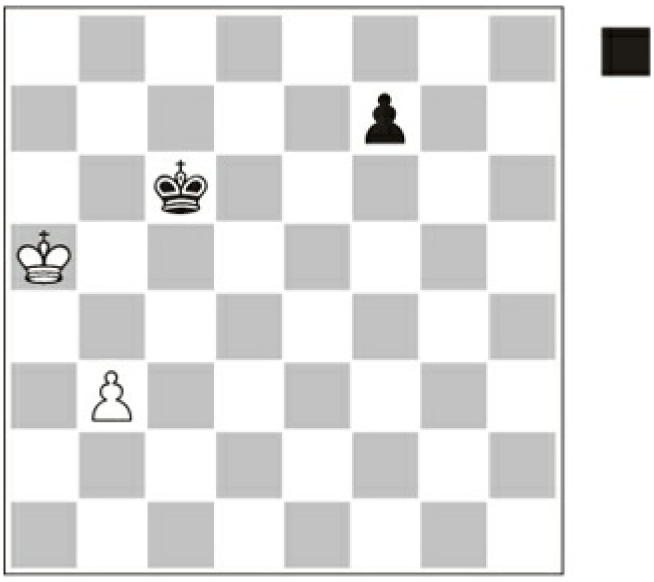
3.Ke5! Kxc6

And now Black has to spend another tempo on defence, to prevent the white king from supporting his pawn. Now the white king changes his route and gets inside the square of the black pawn.

4.Kf4=

Drawing the king to a certain square

One of the most frequent goals of dual-purpose manoeuvres is to draw the enemy king to a certain square. Promotion with check is a typical phenomenon in these endings. Very often this phenomenon arises naturally and is just another element in calculation, but sometimes it is the result of a skilled sequence of play.



Position 12.13

Ljubojevic – Browne

Amsterdam 1972

Here the black player did not notice anything special in the pawn race and agreed to a draw. However, he could have forced a win with accurate play, following the ideas of the last two examples.

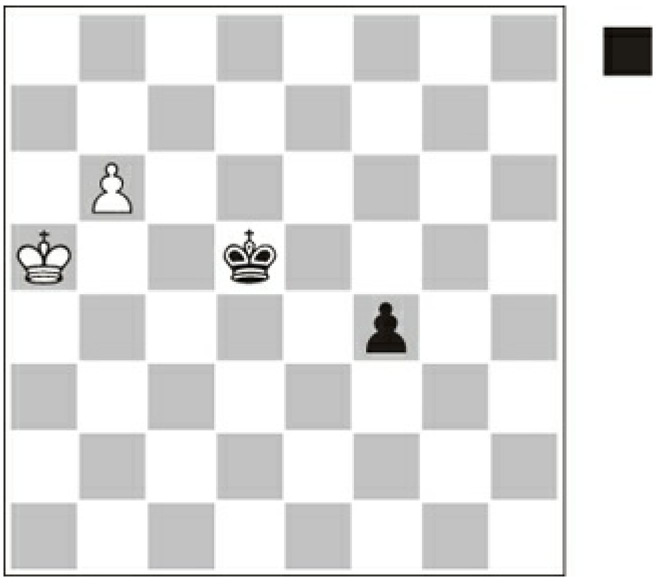
1...Kd5!

The king eludes an eventual check, and at the same time shoulders the enemy king away from the square of the black pawn. Here we have a pawn race where the white pawn is apparently more advanced, but the unfortunate position of the white king, on the edge of the board, is a nuisance

for his pawn.

The game continued 1…f5? 2.Kb4 f4 3.Kc4 and draw.

2.b4 (2.Kb4 Kd4! and the white king is blocked: 3.Ka5 f5 4.b4 f4 5.b5 Kc5! 6.b6 Kc6 leads to the main line) **2…f5 3.b5 f4 4.b6**



Position 2.14
(analysis diagram)

So far the white pawn was ahead in the race, but here comes the surprise…

4…Kc6!

Luring the white king to a fatal square.

5.Ka6 f3 6.b7 f2 7.b8Q f1Q+ and the white queen is lost.

Section 3. Two pawns vs. one

In pawn endings, being a pawn up gains importance as the number of pawns on the board decreases. With two pawns against one, winning chances are 75% (with King + one pawn against King alone they drop to 50% again), but they decrease dramatically when both players have rook's pawns.

There is a great number of possible and exhaustively analysed configurations, and a thorough research of them is not the aim of this book. We will just deal with some situations we consider the most interesting for practical play.

The situation with two blocked rook's pawns and an extra passed pawn is rather common and interesting. When the blocked pawn is not a rook's pawn, the ending is usually won, and the winning plan is simple: you just have to give up your passed pawn to capture the enemy pawn and then reach a won King + Pawn vs. King ending. If the blocked pawns are rook's pawns, sometimes this plan does not work. We will divide these endings into three groups to organise our study: distant passed pawn, bishop's pawn (same wing as the blocked pawns) and central pawn (same wing as the blocked pawns).

ENDING 83	Rook's pawns and one distant passed pawn

The result of this ending is determined by several factors:

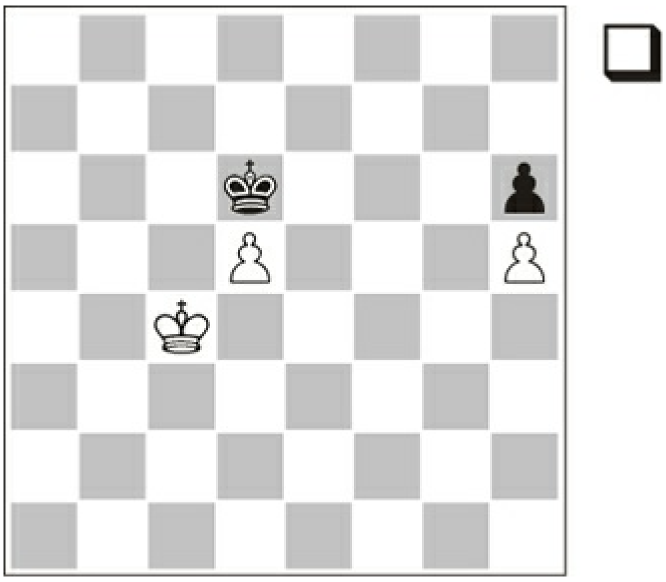
1. How advanced the blocked rook's pawns are.
2. How advanced the passed pawn is.
3. The position of the kings.

Nevertheless, we can reduce all the theory to a few rules. We will skip those positions where the stronger king can force the promotion of the passed pawn, and those where successful

counterplay can be carried out by the defending king.

For the rest of the positions, the winning plan is always the same: to give up the passed pawn to capture the rook's pawn and then prevent the defending king from reaching the drawing zone. Of course, were the blocked pawns on any other file, the defending king would not be able to reach the drawing zone in any case.

First we will see an example where the stronger side has a rook's pawn already on the 5th rank.



Position 12.15

1.Kd4 Kd7 2.Ke5

White must keep the black king separated from the pawn. It is easy to see that 2.Ke4 Kd6 3.Kf5 leads to a draw.

2...Ke7 3.Kf5 Kd6 and here the king race starts: **4.Kg6 Kxd5 5.Kxh6 Ke6 6.Kg7** and it is obvious that the black king cannot get back in time to cause trouble.

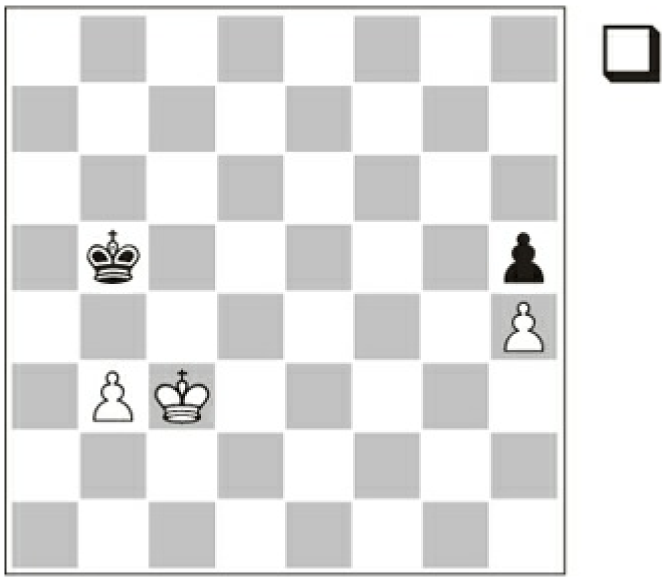
The analysis of this ending is quite simple. The passed pawn could be on any other square on the a-, b-, c- or d-files and, with some exceptions we will see later, on the e-file. We can draw the following conclusion:

Conclusion: If the stronger side has his rook's pawn already on the 5th (or 6th) rank, the ending is always won.

From this we can also infer: both players must try to advance their rook's pawns as far as possible; if they are not blocked yet, theirs should be the first moves in the ending.

It is also worth pointing out the white king's manoeuvre: once he has captured the black pawn, he moves diagonally to shoulder away the black king. The f-file would be the drawing zone.

Blocked pawns not on the 5th rank yet



Position 12.16

We have already stated that the first thing to do is to push the rook's pawn as far as possible. If the stronger side pushes his pawn to the 5th rank, the ending is won. If the pawn is less advanced (4th, 3rd or 2nd rank) there is a sort of geometric rule to calculate quickly whether the ending is won or not. Actually, this rule can also be applied for pawns on the 5th or 6th ranks. The first theoretician to enunciate this rule was W. Bähr. Like any rule that requires remembering a geometrical figure on the board, it is very likely to be forgotten. Perhaps for this reason, different authors have tried to reformulate it to make it more general and simple. I have chosen that direction as well.

Whatever rule you follow, you should understand why it works and pay attention to any feature that helps you remember it. Here the procedure to remember the rule comes from the observation of the king manoeuvres, which actually determine the rule itself.

1.Kd4!

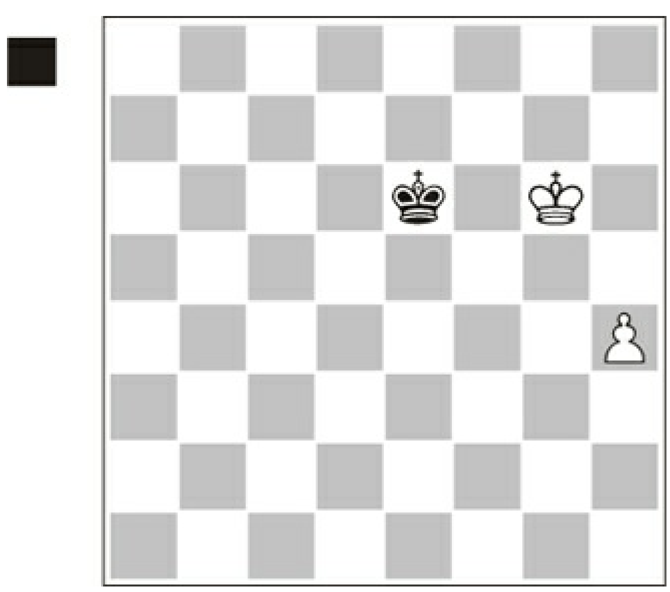
After the capture of the white pawn, the black king must head for the drawing zone. The nearest squares are f7 and f8. Therefore, White must keep the passed pawn as far back as possible, so that it takes more time for the black king to capture the pawn and then come back to fight.

1.b4? would be a serious mistake, as then the black king's way back is easier and the ending would be drawn: 1...Kb6 2.Kc4 Kc6 3.Kd4 Kb5 4.Ke5 Kxb4 5.Kf5 Kc5. The black king heads for f7 or f8, securing the draw; therefore, the f-file is the collision line for the kings and the clue to define the drawing line we will see later: 6.Kg5 Kd6 7.Kxh5 Ke7 8.Kg6 Kf8 and the black king reaches the saving file.

1...Kb4 2.Ke5 Kxb3 3.Kf5 Kc4 4.Kg5 Kd5 5.Kxh5 Ke6 6.Kg6!

In contrast with the 1.b4? line, the white king arrives in time to shoulder the enemy king away from the f-file.

This position deserves another diagram:



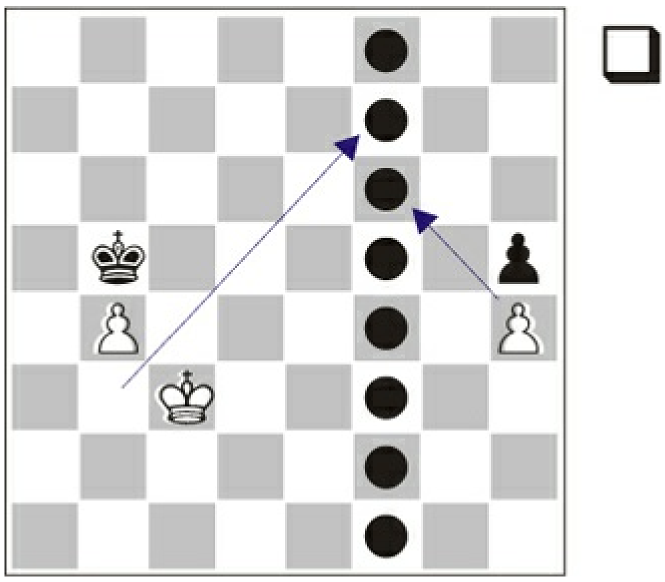
Position 12.17
(analysis diagram)

6...Ke7 7.Kg7 1-0
The kings oppose one another and the black king cannot reach the f-file, which we will call the collision line.

We can draw another idea from this example, though we will leave definitive conclusions for the next: **The passed pawn is best placed as far from promotion as possible.**

Drawing lines

This is the position after 1.b4? in Position 12.16. At last we can draw on the board the lines which help us know whether the ending is won or not, as well as explain them:



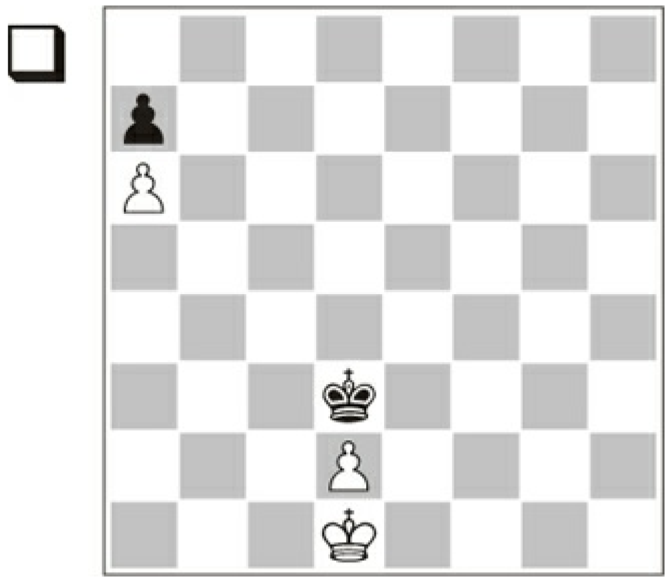
Position 12.18

The lines are based upon the kings' routes: The f-file is the collision line (where the kings collide). The black king must capture the b4-pawn and then move diagonally towards the collision line (from b4 to f8). The white king must capture the h5-pawn and then move diagonally towards the same collision line, though he just gets to the g-file. If the black king's route crosses the f-file above the white king's route (in the direction shown in the diagram), then the king is able to pass, so Black can draw. If the black king's route crosses the f-file through the same square as the white king's route, or below, the kings collide, so the black king cannot pass and thus loses.
After this long explanation, necessary to understand the rule and its basis, you can reduce it to a quick look: just draw mentally the lines running from the two pawns to the f-file and see which line runs higher.
This rule applies to all positions with blocked rook's pawns, even when the stronger side has his pawn on the 5th or 6th rank (then the defending king cannot pass) and for all **normal** positions of the kings (regarding the passed pawn). It is easy to generalise as well if the kings do not occupy normal positions.
In this concrete position the rule states that Black should draw. The analysis runs as follows:
1.Kb3 Kb6 2.Kc4 Kc6 3.Kd4 Kb5 4.Ke4 Kxb4 5.Kf5 Kc5 6.Kg5 Kd6 7.Kxh5 Ke7 8.Kg6 Kf8 and the black king has reached the drawing zone.

ENDING 84	The passed pawn is central and near

If the passed pawn is on the central file nearest to the blocked rook's pawns, it is easier for the defending king to develop some counterplay against the pawns. Moreover, the stronger side's king has less room to attack the enemy rook's pawn.
The approach to this ending is thus very different.

Blocked pawn on the 6th rank



Position 12.19

Let us start with a position where the blocked pawn is well advanced. In contrast with the previous ending, this is less favourable to the stronger side.

1.Kc1 Kd4 2.Kc2 Kc4 3.d3+ Kd4

Immediate counterattack by 4...Kb5 draws easily, but we will follow this line to check that the result is the same, no matter how advanced the passed pawn is.

4.Kd2 Kd5 5.Kc3 Kc5!

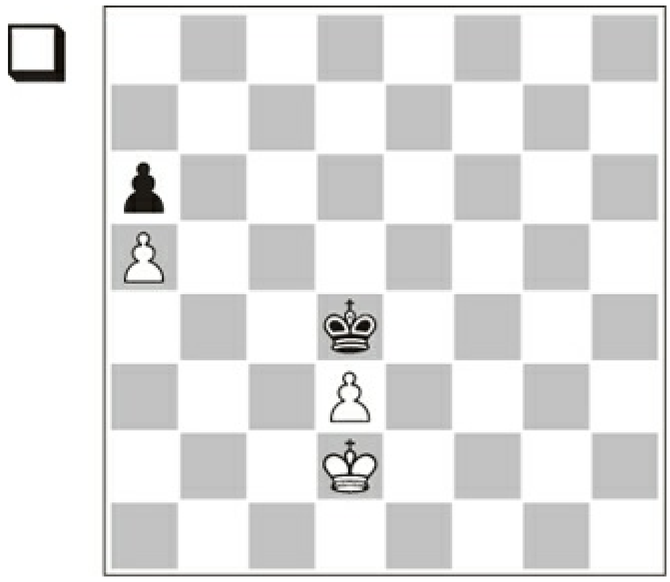
The only instance when the counterattack does not work and Black must keep the white king away from the key squares. **5...Kc6** 6.Kc4! Kb6 7.Kd5! Kxa6 8.Kc6 trapping the black king and winning. We will study this in detail in the following positions. Other moves are losing, such as **5... Kd6** 6.Kd4 and the d-pawn promotes.

6.d4+ Kd5 7.Kd3 Kd6 8.Kc4 Kc6 9.d5+ Kd6 10.Kd4 Kd7 11.Kc5 Kc7 12.d6+ Kd7 13.Kd5 Kd8 14.Kc6 Kc8

This is the position we wanted to see. **When the pawns are blocked on the 6th rank, the stronger side's king has no room to attack the enemy pawn and it is a draw.**

15.d7+ Kd8=

Blocked pawn on the 5th rank



Position 12.20

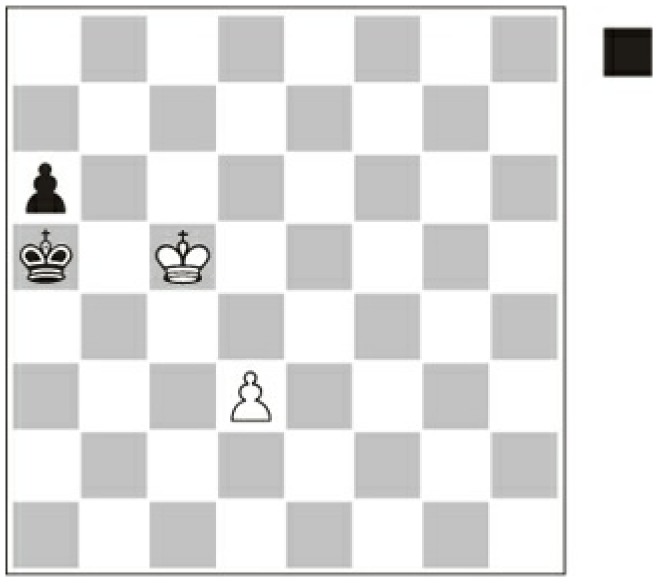
When the pawn is blocked on the 5th rank, winning chances increase.

If the central pawn were on the 2nd rank, immediate counterattack would be enough to draw. We will see what happens here:

1.Ke2! Kc5 2.Ke3 Kb5

Setting up a counterattack. Passive defence fails: 2...Kd5 3.d4 Kd6 4.Ke4 Ke6 5.d5+ Kd6 6.Kd4 Kd7 7.Kc5 Kc7 8.d6+ Kd7 9.Kd5 Kd8 10.Kc6 Kc8 (here the white king has room to capture the a-pawn) 11.Kb6 Kd7 12.Kxa6 Kxd6 13.Kb7+–.

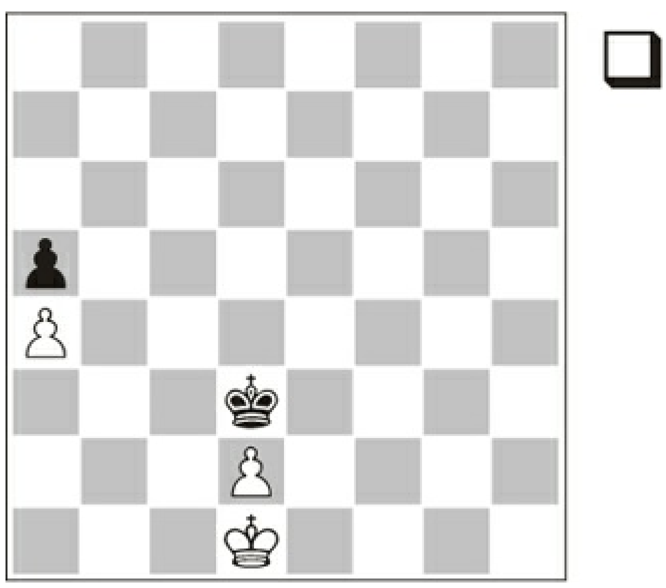
3.Kd4! Kxa5 4.Kc5!



Position 12.21
(analysis diagram)

Pay attention to this instructive sequence. The white king hinders the black king from leaving the edge and thus White promotes first.
4...Ka4 5.d4 a5 6.d5 Kb3 7.d6 a4 8.d7 a3 9.d8Q a2 10.Qd4+–

Blocked pawn on the 4th rank



Position 12.22

When the blocked pawn is on the 4th rank, the counterattack is successful only with certain positions of the kings.
1.Ke1 Kc4 2.Ke2! Kb4
Again, passive defence fails: 2…Kd4 3.d3 Kc5 4.Ke3! (always with an eye on Black's counterattack) 4…Kd5 5.d4 Kd6 6.Ke4 Ke6 7.d5+ Kd6 (from now onwards, the Bähr Rule applies and states that White wins) 8.Kd4 Kd7 9.Kc5 Kc7 10.Kb5+–.
3.Kd3! Kxa4 4.Kc4!
Once more, the same technique as in the previous example. Here both pawns promote at the same time, but the position of the kings allows an exceptional victory.
4...Ka3 5.d4 a4 6.d5 Kb2 7.d6 a3 8.d7 a2 9.d8Q a1Q 10.Qd2+!+–
(**Ending 20**). We will not see examples where the blocked pawn is less advanced but, since counterattack is impossible, the Bähr Rule is still valid.

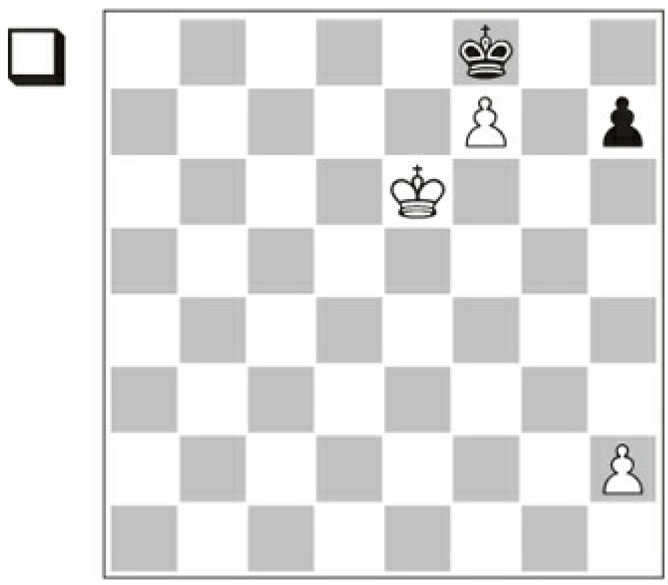
Summary of Ending 84:
When the pawn is blocked on the 6th rank, the ending is drawn.
When the pawn is blocked on the 5th rank, the defending side can counterattack only if the central pawn has not advanced. Therefore, the ending is usually won.
When the blocked pawn is further back, Bähr's Rule is still valid.

ENDING 85 — A passed Bishop's pawn on the same wing

This is another interesting endgame, which presents some subtleties and occurs rather frequently. Here the passed pawn is close to the blocked pawns, and thus these positions present a completely different character.

Both players should keep their rook's pawns on their original squares. The defending side, because then the pawn is easier to defend; the stronger side, to keep the possibility of pushing the pawn one or two squares at will, when the right moment comes.

The stronger side has his rook's pawn on its original square. As we will see in this example, when the stronger side has his h-pawn on the 2nd rank, the ending is always won. The stronger side just has to push the bishop's pawn to the 7th rank and then force the enemy pawn to move.



Position 12.23

1.Kf6 h5 (1…h6 2.h4! h5 3.Kg6+–) **2.h3 h4 3.Kg6 1-0**

It is easy to see that the ending would be drawn with the white pawn on h3. In that case, I propose the following **Exercise**: where should Black move his pawn to answer the normal move 1.Kf6 ?

Conclusion: The stronger side always wins when his rook's pawn is on the 2nd rank.

ENDING 86 — The defending side has moved his pawn. Triangulation

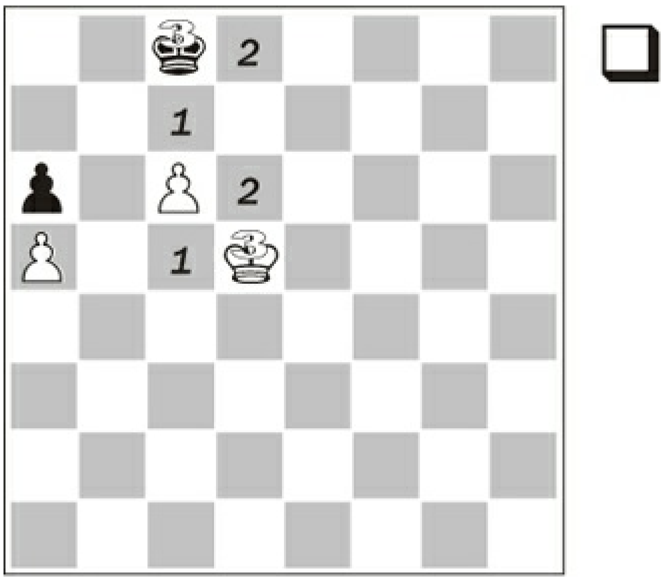
If White has already moved his rook's pawn, the ending is still won if Black has also moved his. Positions where the stronger side has moved his pawn, but the defending side has not, require a detailed analysis. We will not deal with those endings in this book.

Position 12.24 illustrates the winning procedure when the defending side has moved his pawn,

but it also introduces a very important motif in pawn endings. Therefore, it deserves special attention.

I am referring to corresponding squares. Although conceptually clear, this motif can require a very complex analysis.

Since I consider that corresponding squares are hardly interesting from a practical point of view, we will not go deeply into them. I recommend the following books for those readers interested in this topic: *Pawn Endings*, by I. Maizelis (available only on CD-ROM), *Secrets of Pawns Endings*, by Müller & Lamprecht (Everyman) and *The Final Countdown*, by Hajenius & Van Riemsdijk (Cadogan).



Position 12.24

This, however, is the simplest and most frequent case of corresponding squares: triangulation. As it occurs quite frequently in actual games, it is necessary to know this technique. Therefore, we are going to see the correct procedure in detail.

The first obvious feature of this position is that the c6 pawn cannot promote, so White will need to capture the black pawn. For that, the white king needs to occupy the b6-square. That is the core of the problem.

If White plays 1.Kc5, Black must answer 1…Kc7 to prevent the white king from reaching b6. On the other hand, if White plays 1.Kd6 to promote his pawn, Black must answer 1…Kd8; these are the two key positions for the defence.

Although apparently Black has resources against all White's threats, the fact that the black king has to answer accurately to any move by the white king should arouse our suspicions. For instance: what if the white king occupies a square where he threatens to occupy both key squares c5 and d6? Here that square is d5, where he is now. It is obvious that, in that case, Black must move to a spot where he can answer both threats, that is, where he can keep an eye on d8 and c7, and the only valid square for that is c8.

Again, Black has found a way to answer Kd5, but again he has just one possibility, and that should arouse our suspicions. Moreover, that third square has become a third critical defensive position.

We just have to look for squares where the white king can threaten two (or 3, if possible) key squares, and then check whether Black has an appropriate answer in each case. There is no need to go deeply into theory to find a triangulation through d4 and c4. The king attacks c5 and d5 from those squares. Black lacks a manoeuvre to answer this, so he loses the correspondence and thus the game.

If we put a number for each attacking square for the white king, and the same number for the square the black king has to occupy in each case, it is easier to follow the analysis and reasoning. Thus, we say that pairs of corresponding squares are established here. If we look carefully at those corresponding squares, we may see whether the defensive set-up can be broken or not.

Corresponding squares are a step beyond opposition. The idea is the same, but opposition is easier to understand, as it is very visual, whereas the pairs of corresponding squares are not so evident, which complicates the analysis. Nevertheless, triangulation, which is the case we have in this position, is not only the most frequent procedure, but also the easiest to handle.

Once the goal has been established, it is easy to play the position accurately.

1.Kd4!

The king goes for triangulation. Of course, any move could eventually win if White later turns to the right path. The white king attacks c5 and d5.

1...Kd8

Therefore, Black keeps an eye on the corresponding squares c8 and c7.

2.Kc4

Zugzwang. Again, the white king attacks c5 and d5. Black cannot simultaneously defend c8 and c7 anymore.

2...Kc8

Once our opponent has fallen into zugzwang, we occupy the corresponding square. The idea is quite similar to opposition. The black king occupies c8 and the corresponding square is d5; therefore:

3.Kd5 Kc7

Now the corresponding square is c5, so:

4.Kc5 and the white king will occupy b6 and capture the pawn.

This manoeuvre can be applied to many other positions with more pawns on the board.

In this ending, if the black pawn were more advanced, White would not need to be so subtle. Just pushing the c-pawn and invading the square adjacent to the black pawn would be enough to capture it.

On the other hand, we can draw a conclusion from this ending, regarding this kind of position. I will state it immediately, but remember that here the idea of triangulation is more important than the final result of the ending.

Conclusion: The ending with two blocked rook's pawns and an extra bishop's pawn on the same wing, is always won if (given a normal position of the kings) the defending pawn has moved.

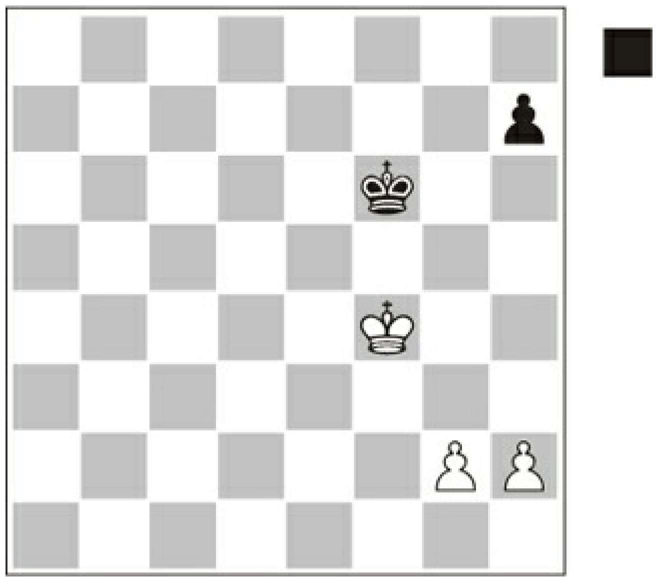
ENDING 87 — Knight's and rook's pawn against rook's pawn

This ending deserves our attention for several reasons: first, it occurs quite often in practice (again we may find some grandmasters blundering); second and more importantly, it can be a good introduction to a great number of interesting and useful ideas for endings with many pawns. Some of these ideas are: planning, reserve tempi, Steinitz's rule ('it is convenient to keep the pawns on the 2nd rank'), opposition, anti-opposition, stalemate resources, key squares and outflanking.

If the black pawn is still on the 2nd rank, Black has a stubborn defensive plan consisting in hindering the white king's penetration without moving the pawn. This plan is enough to draw unless White keeps at least one of his pawns on the 2nd rank (we will see why).

However, if White keeps his pawns on the 2nd rank, Black's plan fails and then his drawing hopes lie in pushing the pawn and keeping the king on the 4th rank (at least) and then trying to swap pawns or set up a counterattack on the white pawns.

All pawns are on the 2nd rank

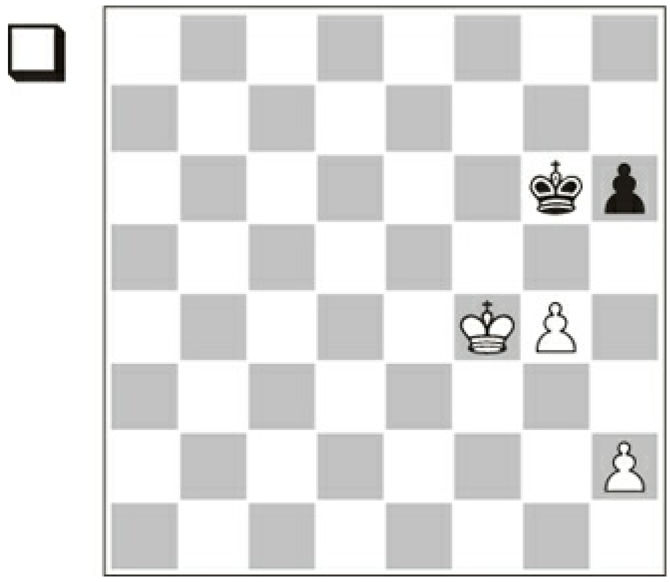


Position 12.25

Here the white king occupies the 4th rank and his pawns are on their original squares. This position completely favours White and is worth remembering. By now we will just see that White wins if Black starts, but White would win even if he had the move, thanks to reserve tempi, as we will see in the next example.

1...Kg6

As we have said, if White keeps his pawns on the 2nd rank and his king has reached the 4th rank, waiting is not enough to draw. Therefore, **1…h6** is a very important and instructive variation. White wins now by using his reserve tempi. 2.g4! (it is interesting to note that, if the white pawns were on g3 and h3, the ending would be drawn, as is shown by the variation 2.g3 Kg6 3.h3? Kf6 4.g4 Kg6 5.h4 Kf6. Black has the opposition and White cannot make further progress: 6.Ke4 Ke6 7.Kd4 Kd6=) 2…Kg6.

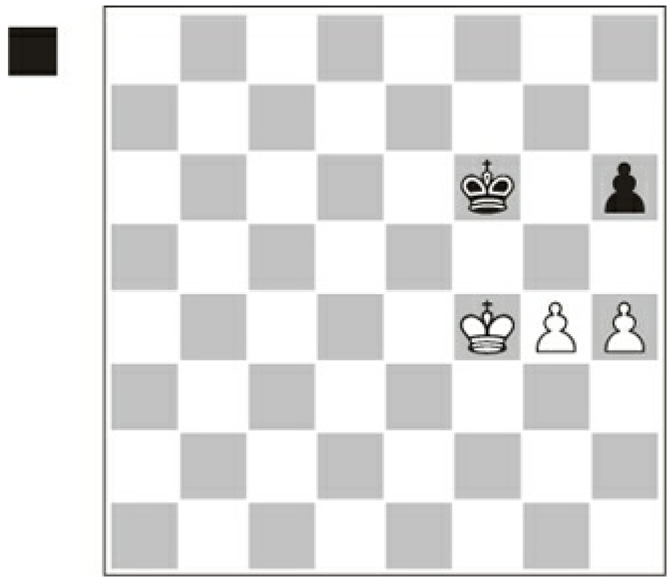


Position 12.26
(analysis diagram)

We have reached a very interesting moment to recall the so-called **Steinitz Rule: 'In pawn endings, 2nd-rank pawns are useful, as then we can always choose whether to move it to the 3rd or 4th rank.'**

Here White wins by playing h2-h3, but not h2-h4, and would not win if the pawn were on h3. Of course, the Steinitz Rule is a particular case of a more general theory which states: **'In pawn endings, reserve tempi are useful to break zugzwang situations'.**

3.h3! Kf6 4.h4.



Position 12.27
(analysis diagram)

Another interesting moment. This position is decisive for the evaluation of this ending. White wins because he has the opposition and thus the white king can outflank his opponent, occupy the critical squares for the h6 pawn and capture it. It is true that the h-pawn is not blocked, but if Black pushes it, then White plays g4-g5 and wins thanks to a protected passed pawn, though not without difficulties. If the black king tries to hold, he fails to an instructive outflanking manoeuvre. Let us see the two possible lines:

A) 4…h5 5.g5+ Kf7 6.Ke5!. Another instructive moment which illustrates that opposition is just one particular case of corresponding squares (though one of the most efficient) and, therefore, of the general kings' struggle for critical squares. Here White rejects the opposition for concrete reasons, but we cannot generalise – just think that you need to be aware of the special features of each position. Very often, opposition works and sometimes (not very often) anti-opposition works. (6.Kf5 Kg7 7.g6? Kh6! and Black is saved thanks to stalemate ideas) 6…Kg7 7.Kf5 Kf7 8.g6+ Kg7 9.Kg5+–;

B) 4…Ke6 5.Ke4 Kf6 6.Kd5! (here the outflanking starts:) 6…Ke7 (the most tenacious) 7.Ke5 Kf7 8.Kf5 Kg7 9.Ke6! (the second part of the outflanking manoeuvre) 9…Kg6 10.h5+!. The point! This is the only way to break Black's resistance. Now the h6 pawn is blocked and the white king can capture it because he has reached the 6th rank. Black has some counterattack which barely fails: 10…Kg5 (10…Kg7 11.Ke7 Kh7 12.Kf6 Kg8 13.Kg6 and the pawn is lost) 11.Kf7 Kxg4 12.Kg6 Kf4 13.Kxh6 Kf5 14.Kg7+– and the pawn promotes.

Back to the main line.

2.Kg4

White's plan is: first transfer the king to h6, then push the pawns and reach a won pawn ending. We will see how.

2...Kf6

2…Kh6 blocks the way to h6 but allows outflanking: 3.Kf5! Kh5 (3…Kg7 4.Kg5 leads to the main line) 4.g3. Now the white king will not allow his black counterpart to leave the edge, and he only needs to work out how to capture the h7- (or h6-, if it moves) pawn to reach a won ending: 4…Kh6 5.Kf6 Kh5 6.Kg7 h6 7.h4+–.

3.Kh5 Kg7

Another instructive position. White wants to occupy h6: there are many ways, but one is wrong and it is important to know.

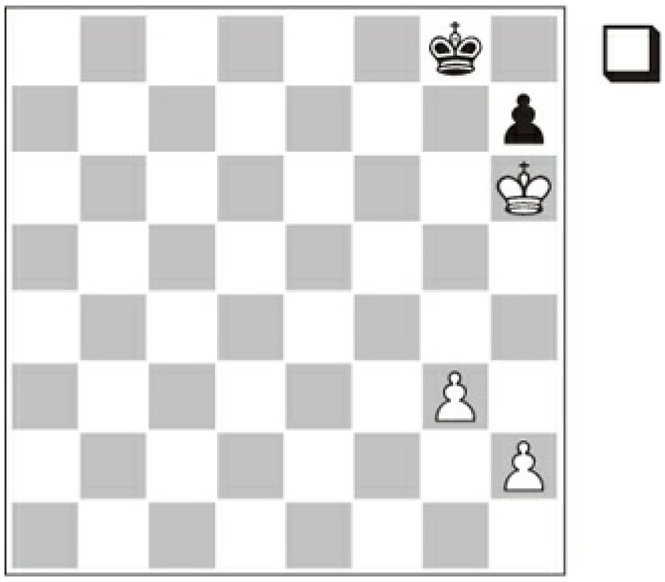
4.g3

4.Kg5 or **4.h3** or **4.h4** also win, **but not 4.g4? h6!=**. This position is worth observing. Now White has to transfer the king to f4 in order to win, but his own g4 pawn is an obstacle. Therefore, it is important to note that a pawn on g4 almost ruins victory, even if the other pawn is on h2, because Black has this resource to prevent the white king from reaching h6: 5.Kh4 Kg6 6.Kg3 h5!, forcing the draw.

4...Kf7

Now the white king can reach h6 without trouble. After 4…h6 5.Kg4! Kg6 6.Kf4, White will reach the position shown in diagram 12.27 thanks to the reserve tempi.

5.Kh6 Kg8



Position 12.28
(analysis diagram)

At last, the white king has reached h6. Now White wins because his h-pawn is on the 2nd rank. If White had no pawns on the 2nd rank, Black would have had to choose a waiting square, after calculating the white pawns' tempi.

6.g4 Kh8 7.g5 Kg8

Now White has a choice, and he has to calculate the timing in order to play g5-g6 when the black king is on h8. Of course, just counting is enough, and there should not be any trouble, but sometimes we get confused: should I count my first move? my last move? or do I make one move more than my opponent because I start? And so on…

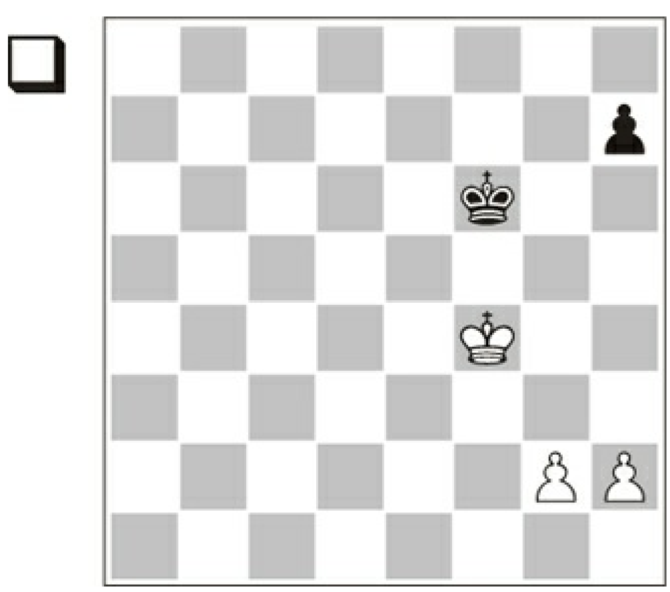
For those who are lazy or suffer time pressure, here comes **Bird's colour rule**, which interests both sides. **When the kings occupy same-coloured squares, pawns should occupy same-coloured squares, and vice versa.** Here the kings occupy opposite-coloured squares, so the pawn should move to h3.

8.h3! (8.h4?? Kh8 9.h5 Kg8 10.g6 hxg6 11.hxg6 Kh8=) **8...Kh8 9.h4 Kg8 10.h5 Kh8 11.g6 hxg6 12.hxg6 Kg8 13.g7+–**

A very interesting endgame. We have seen a lot of ideas and everything seems clear, but I think that the ideas will get more clearly fixed if we analyse a couple more similar positions.

Same position, White to move

Exceptionally, I will show the same position again. We are going to analyse position 12.25 again, but this time it is White's turn.



Position 12.29

As we have said, White wins even if he moves first. White has 4 possible pawn moves: three are winning, and only one is wrong.

1.h3

The simplest way. This position would be won even if it were again White's turn.

1.h4 also wins: 1...Kg6 2.Kg4+– and the king will occupy the h6-square without moving the g-pawn.

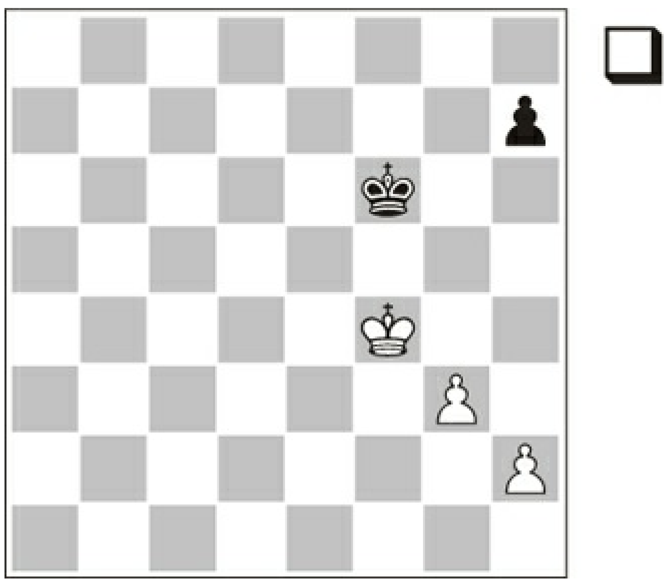
1.g3 also wins, though it leads to a position where White has run out of reserve tempi before occupying the h6-square.

1.g4? would be a mistake, as now the king will not reach h6.

1...Kg6 (1...h6 2.g3! Kg6 3.g4 Kf6 4.h4+–, as we know) **2.Kg4 Kh6 3.Kf5 Kh5** (3...Kg7 4.Kg5+–) **4.g3 Kh6** (4...h6 5.Kf4 Kg6 6.g4 Kf6 7.h4+–) **5.Kf6 Kh5 6.Kg7 h6 7.h4+–**

A pawn is already advanced

If one of the white pawns has already moved, winning chances decrease; here the g-pawn is best placed on the 2nd rank.



Position 12.30

We have here the same position as in the previous diagram, only with the pawn already on g3. White is to move. Is this still winning for White? The answer is: no. White lacks useful reserve tempi, since g3-g4 does not work and White should not move the h-pawn until the king reaches the h6-square. Therefore, White cannot win.

Let us see Black's correct defence.

1.h3

What else? **1.g4** is a draw, as we know. **1.Kg4** Kg6 2.Kh4 Kh6 and no progress can be made, as g3-g4 still fails: 3.g4 Kg6! (but not 3...Kg7 4.Kg5!, reaching the h6-square) 4.h3 Kg7=. Nothing matters now.

1...Kg6

Here 1...h6 is also a draw, but if the white pawns have already moved, waiting is the safest and simplest policy.

2.Kg4 Kf6 3.Kh5 Kg7 4.Kg5

This moment is critical for Black. The next white move will be 5.Kh6 and then the pawns will advance.

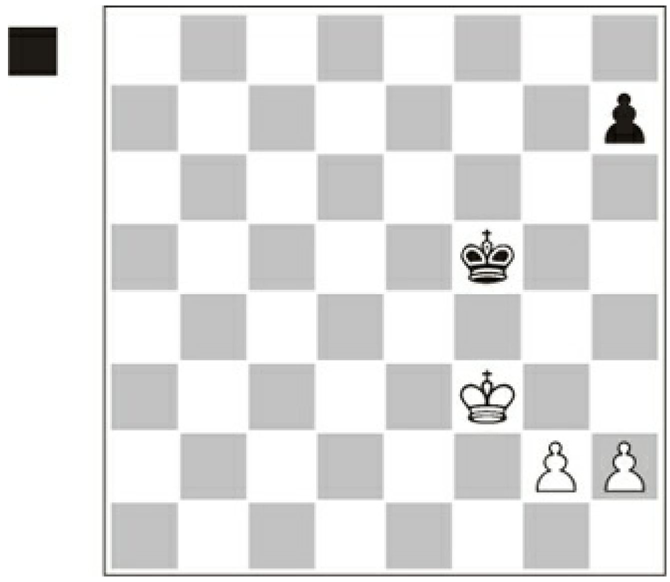
Black has to count moves in order to place the king on h8 when White moves g5-g6: 6 moves for White, so the black king must move to a dark square on the 7th move from now; therefore, the black king must move to a dark square also on the first move.

We can also apply Bird's Rule: as the pawns are on opposite-coloured squares when White moves Kh6, the black king must move to an opposite-coloured square, that is, g8; therefore, that is the square where he should not go now.

4...Kh8! (4...Kg8?? 5.Kh6+–) **5.Kh6 Kg8 6.g4 Kh8 7.g5 Kg8 8.h4 Kh8 9.h5 Kg8 10.g6 hxg6 11.hxg6 Kh8=**

An important defensive position

Nevertheless, even with the white pawns on their original squares, Black has certain drawing chances with the king on the 4th rank.



Position 12.31

We have here an important defensive position that you should remember. Black cannot let the white king penetrate, but he can still draw. It took a long time to discover the saving move:
1...h5!
Thus Black can hold the 4th rank and the key squares for the pawn in all variations. Other moves just lose: 1…h6 2.g4+ Kg5 3.Kg3! h5 (3…Kf6 4.Kf4, an already known position) 4.h4+ Kg6 5.g5+– (a well-known theoretical position); 1…Kg5 2.Ke4 h5 3.Ke5 h4 4.h3+–.

2.Ke3 (2.h3 h4= and thanks to the opposition Black can defend the blocked pawn's key squares; 2.h4 Ke5 and Black holds as well) **2...Ke5 3.g3 Kf5 4.h3** (4.Kf3 Kg5 5.h3 Kf5=) **4...Ke5=** and there is no way to make progress.

Although we have not exhausted the analysis of all positions, we can, however, draw some useful conclusions.

Conclusions:

1. **The stronger side should keep his pawns on their original squares (especially one of them) and move the king forward.**
2. **If the stronger side's king reaches h6 and one of his pawns is still on the 2nd rank, the ending is won.**
3. **A g-pawn on g4 may be an obstacle to reach the h6-square, because Black can play …h7-h6 at some stage. Therefore, the stronger side should keep the g-pawn, rather than the h-pawn, on the 2nd rank.**
4. **If the stronger side has moved both pawns, the ending is drawn as long as the defending pawn stays on the 2nd rank.**
5. **However, if the stronger side has both pawns on their original squares, keeping the defending pawn on the 2nd rank is useless. In that situation, the best defensive procedure involves moving the king forward and, if he can hold the 4th rank, pushing the pawn to the 4th rank as well.**

Section 4. Multi-pawn endgames. Some themes in pawn endings

In this last section we are going to analyse some examples with more pawns on the board, something we have not done in piece endgames.

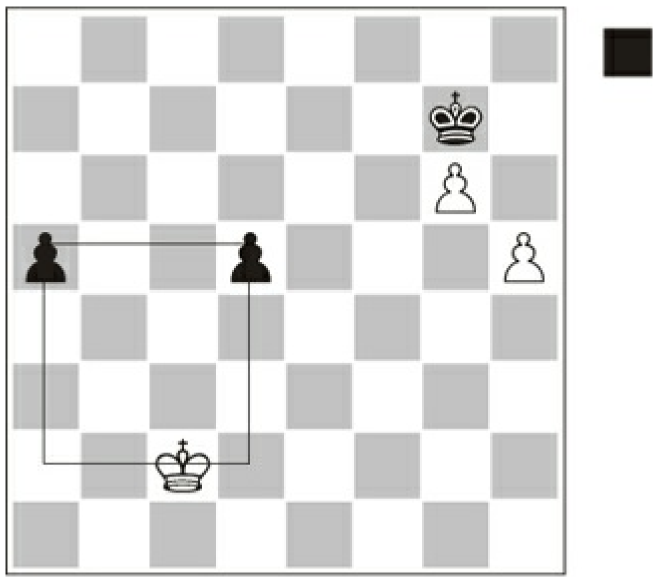
This is because in pawn endings there are a lot of standard situations, motifs, that are not just a more or less important strategic factor, but represent a specific, often decisive, advantage. Also, there are standard procedures to turn these advantages into a full point. Moreover, these themes are valid with more pieces on the board, although those cases are usually more complex. Therefore, studying these themes in pawn endings, which are the most simplified positions, is necessarily the first step in order to fully understand their nature and thus to be able to use them sensibly.

In order to illustrate these ideas we will use positions with as few pawns as possible; nevertheless, these themes are very often decisive in multi-pawn endgames.

ENDING 88	King against 2 passed pawns

The floating square

This is a frequent struggle when there are many pawns on the board. However, in order to understand its principles you should study some ideal, though less likely, examples.



Position 12.32

In this example the black king cannot take part in the struggle because he has to keep an eye on the white pawns, but he can waste moves. Here this possibility does not affect the result, but sometimes it can be decisive.

The real struggle involves the white king and the black pawns. For these cases (a king vs. separated passed pawns) there is a rule which states:

Rule of the **floating square: If a square whose two vertices are occupied by pawns on the same rank, reaches the back rank, then the pawns promote without help. If not, the pawns do not promote.**

If the pawns cannot promote the result depends on the separation of the pawns, as we will see in the next examples. **If they are separated by two files, the king can capture them and win the game.**

This is the case here, no matter who plays now.

1...a4

If White starts, 1.Kc3 Kh6 2.Kd4 a4 3.Kc3 wins, as in the main line.

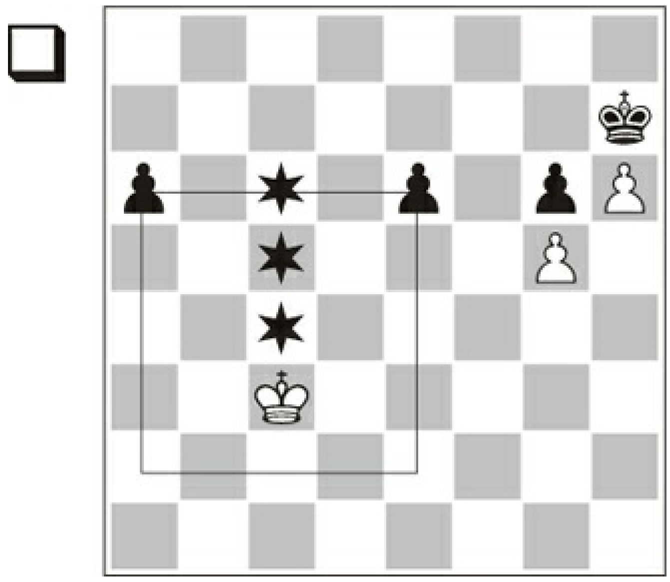
2.Kc3!

Going to capture the advanced pawn straight away can be a mistake: 2.Kb2? d4–+ and now the floating square does reach the back rank, and so the pawns promote, as is easy to calculate.

2...Kh6 3.Kb4+– d4 4.Kxa4

The king is still inside the square of the d-pawn, thus capturing it and winning.

Pawns separated by three files



Position 12.33

When the pawns are separated by three files, if the floating square does not reach the back rank, the king can hold the pawns but not capture them.

1.Kc4!

The king has three squares on the c-file to control the pawns on the a- and e-files. If he just stays there, the pawns cannot advance. If he goes astray, the floating square is shifted and the pawns promote.

1.Kd4? would be a terrible mistake due to 1…a5! 2.Kc4 e5 and the floating square reaches the back rank. The pawns promote without help: 3.Kb5 e4 4.Kc4 a4–+.

1...Kh8!

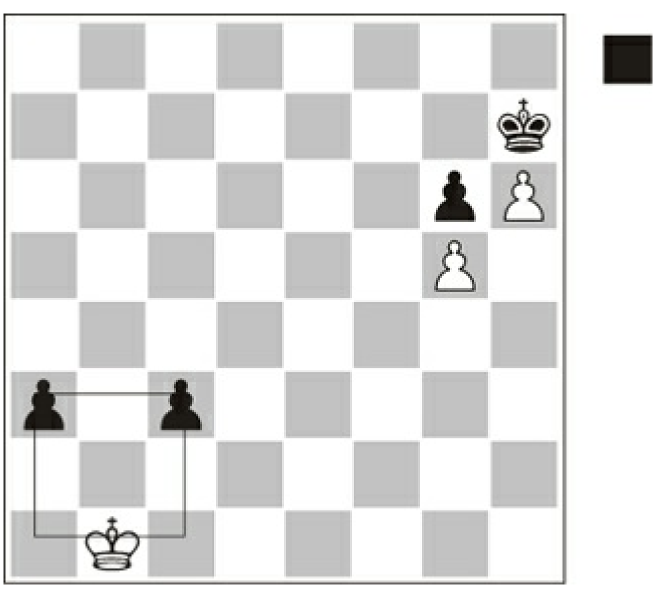
Here it is essential for Black that his king can waste moves. If the pawns advance while the white king occupies the control squares, they are captured: 1…a5? 2.Kb5 e5 3.Kxa5+– and the king is inside the square of the e-pawn.

2.Kc5 (only move here) **2...Kh7 3.Kc4 Kh8**

It is an ironclad draw.

Pawns separated by one file

When the pawns are separated by just one file, they can defend each other if their floating square does not reach the back rank; however, in contrast with previous cases, **they have to provoke zugzwang in order to promote**.



Position 12.34

1...Kh8

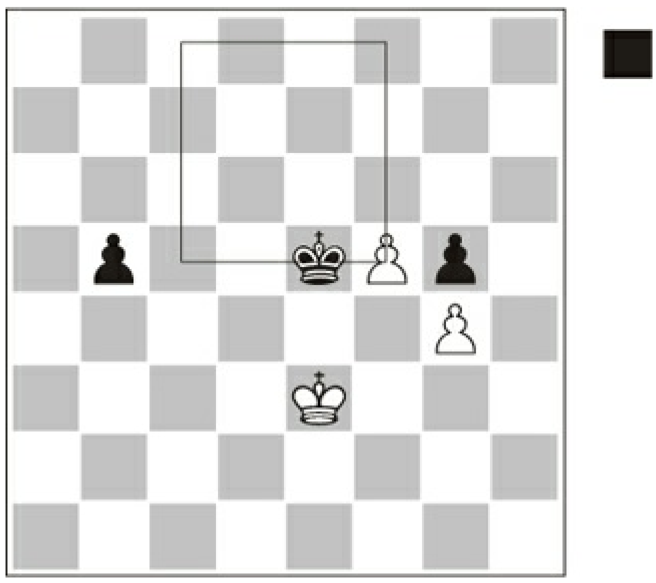
The black king can only waste one move, but here that is enough to win. Now the white king must let one of the pawns advance, as there is only one defensive square for him.

2.Kc2 a2–+

In pawn endings, a protected passed pawn is always a great asset, especially when there are pawns on both wings. This is because it forces the enemy king to stay inside the square of the pawn to prevent promotion, while our own king can move freely.

As the number of pawns on the board decreases, the strength of a protected passed pawn decreases as well, up to the point that sometimes it is not enough to win.

Let us see some examples where the weak side has a distant passed pawn. This situation has a certain theoretical interest but, as in all the examples included in this section, the aim is to find out how to apply the basic concepts to more complex positions.



Position 12.35

Here the black king manages to stay inside the square of the enemy pawn and defend his pawn at the same time.

Of course, White would win if his king reached the 4th rank.

1...Kd5! 2.Kd3

Opposition is not really useful here, as the white king cannot penetrate.

2...Ke5!

2...Kc5? would be wrong due to 3.Ke4+–; 2...Kc6? 3.Ke4+–.

3.Kc3 Kd5 4.Kb4 Kc6!

At the critical moment, the black king is able to defend his pawn and stay inside the square. It is worth checking that triangulation attempts fail.

5.Ka5 Kc5

And White is forced to play 6.f6 and exchange pawns.

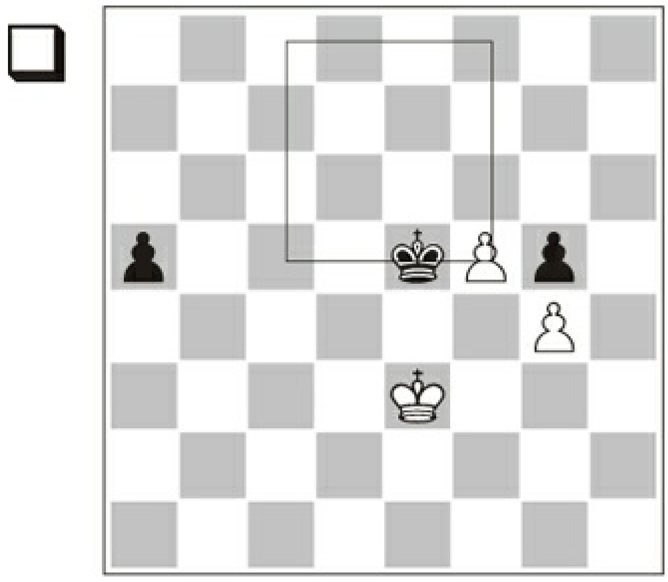
6.f6 Kd6 7.Kxb5 Ke6 8.Kc5 Kxf6 9.Kd5

White captures the g5 pawn but, as we already know **(Ending 80)**, the ending is drawn. It would be a different story with the black pawn on the 6th rank.

We can thus draw the following conclusion:

Conclusion: A king can defend a pawn which is inside the square of an enemy pawn or one file farther; however, this is possible only in favourable circumstances.

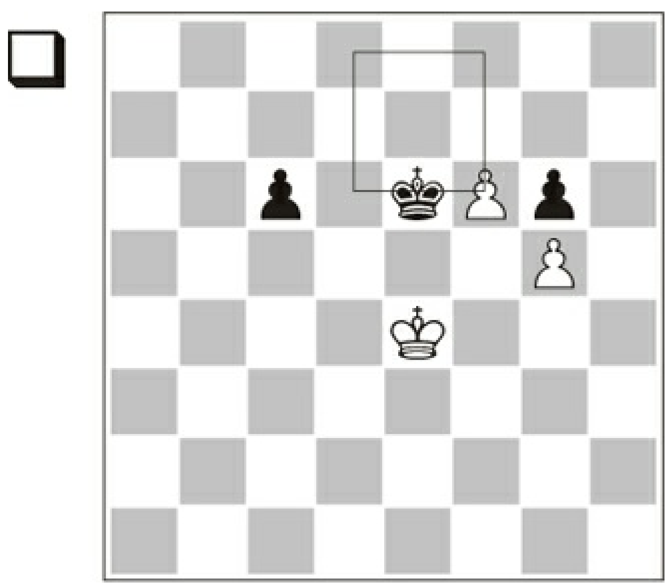
The defending pawn is two files outside the square



Position 12.36

Here the black king cannot defend his distant pawn without leaving the square of the white pawn. Therefore, Black loses.
1.Kd3 Kd5 2.Kc3 Kc5 3.Kb3 Kd5 4.Ka4+–

Protected passed pawn on the 6th rank



Position 12.37

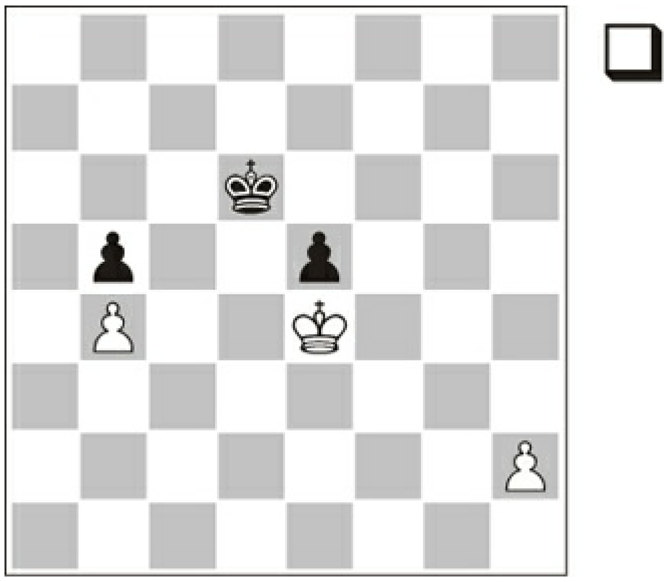
When the protected passed pawn is on the 6th rank, the possibility to defend the black pawn does not help much.
1.Kd4 Kd6 2.Kc4 Ke6 3.Kc5 Kd7 4.f7!
White forces the exchange of his passed pawn for both black pawns, thus reaching a won ending.

Conclusion: When the protected passed pawn is on the 6th rank, the ending is always won (unless it is a rook's pawn).

ENDING 90 — Distant passed pawns

Another important asset in a pawn ending is a distant passed pawn. This is because we can use this pawn, just pushing it, to divert the enemy king away from the struggle. Therefore, the pawn must be far from the kings but also far from the battlefield and thus far from other weaknesses likely to be captured.
This is important in multi-pawn endgames, but also in piece (multi-pawn) endgames, and especially in knight, bishop vs. knight and same-coloured bishops endgames; also, to a lesser

degree, in rook endgames. If we grasp the idea behind the principle of the distant pawn, we will be able to see clearly when this pawn can give us the advantage.



Position 12.38

In this ideal example White wins using the standard plan:

1. **White pushes the pawn.**
2. **The black king must chase the pawn.**
3. **The white king penetrates and captures everything in sight.**

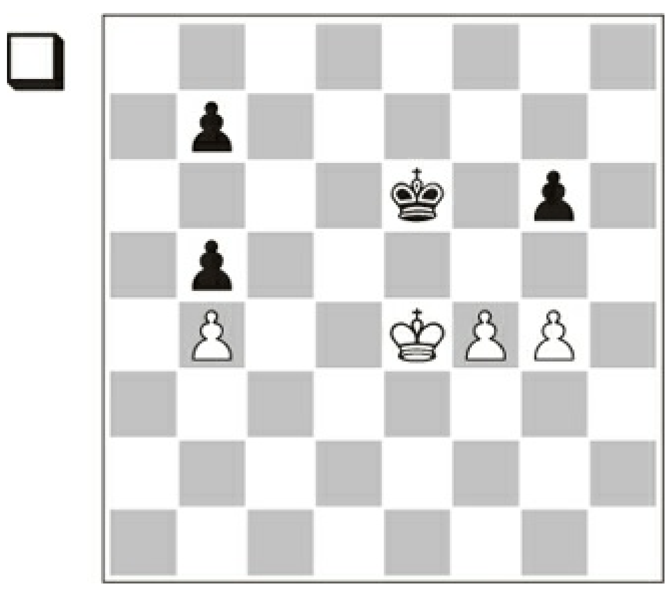
The sequence is usually more complex, but the basic idea is always the same.

1.h4 Ke6 2.h5 Kf6 3.h6 Kg6 4.Kxe5 Kxh6 5.Kd5+– Kg6 6.Kc5 Kf6 7.Kxb5 Ke7 8.Kc6 with a won ending.

ENDING 91	Doubled pawns

Crippled majority

Generally speaking, a doubled pawn is a drawback at every stage of the game, although it depends on the concrete features of the position. In pawn endings, the main drawback of a doubled pawn is that it complicates the production of a passed pawn.



Position 12.39

Sometimes a doubled pawn makes it altogether impossible to create a passed pawn, as in this case. Thus, with a pawn majority in one wing, a doubled pawn is almost a pawn down.

Once again I present an ideal situation as an example. The standard procedure for the strong side is the following:

1. White produces a passed pawn.

2. White pushes the passed pawn, diverting the enemy king.
3. When the right moment comes, the white king moves to the queenside and captures all the black pawns.

Let us have a look at the concrete procedure.

1.f5+ gxf5+ 2.gxf5+ Kf6 3.Kf4

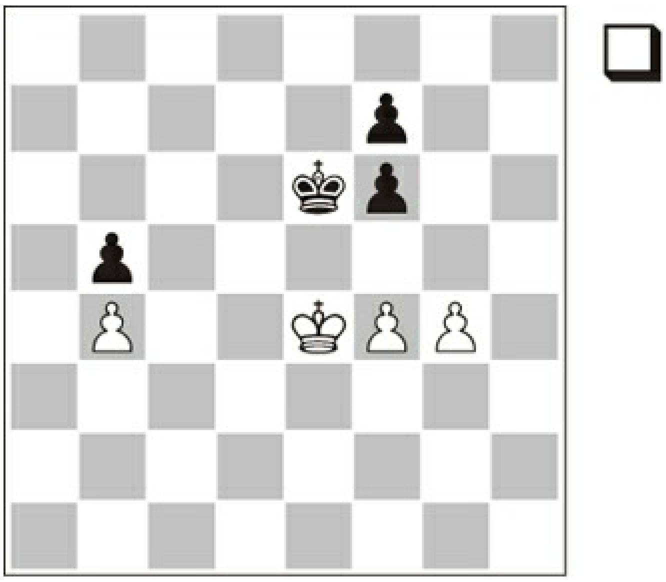
White should not rush, as he has to capture two pawns and that takes a lot of time: 3.Kd5? Kxf5 4.Kc5 Ke5 5.Kxb5 Kd4 6.Kb6 Kc4=.

3...Kf7 4.Ke5 Ke7 5.f6+ Kf7 6.Kf5 Ke8 7.Ke6 Kf8 8.Kd6 Kf7 9.Kc7 Kxf6 10.Kxb7 Ke7 11.Kb6 Kd8 12.Kxb5+–

Doubled pawn on the wing without a pawn majority

On the other hand, if the doubled pawn is on the wing where its side has no majority, the pawn has no trouble to play its defensive role. However, its lack of flexibility should always be taken into account.

In Position 12.40, Black draws, no matter who moves. If it is Black's turn, the right move is 1...f5!; if it is White's turn...



Position 12.40

1.Kd4

1.g5 f5+! (only this works; 1...fxg5 loses due to the dominant position of the white king: 2.fxg5 Kd6 3.Kf5 Ke7 4.Ke5 Kd7 5.Kd5+– and the white king will capture the b5 pawn and then win the race) 2.Kd4 Kd6 – the white king cannot pass.

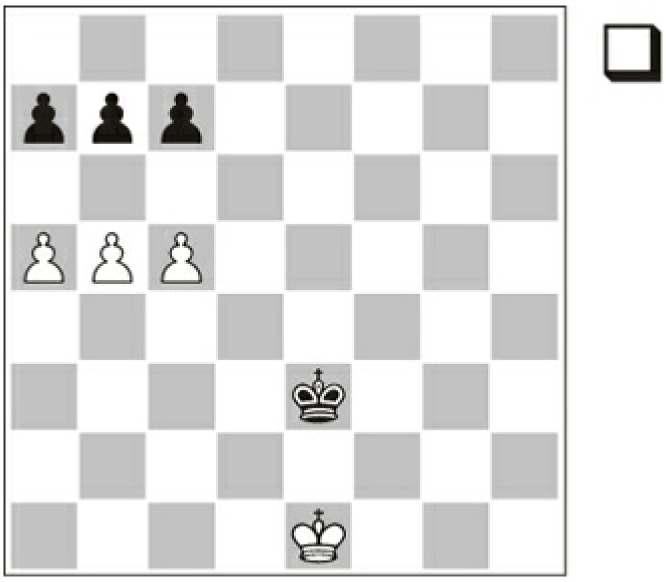
1...Kd6 2.f5 Kc6= and there is no way to make progress.

ENDING 92	Breakthroughs when the king is far

With many, mobile, pawns on the board, and far from the kings, we should always be aware of the possible pawn breakthroughs. Those breakthroughs may involve several pawn sacrifices to secure promotion.

This theme becomes obvious once we know it, but many players have fallen into traps like these throughout chess history. We cannot establish a general rule on breakthroughs but, anyway: you should watch every possible one.

By studying some cases we can develop a certain sense of danger, but you should never be over-confident.



Position 12.41

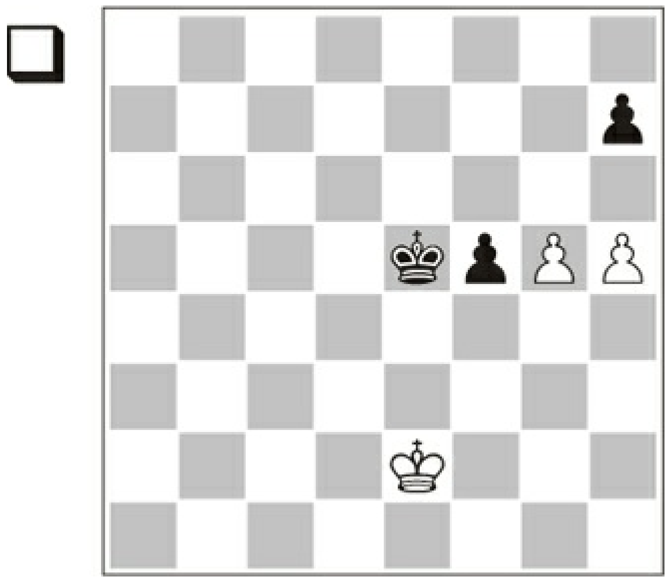
This is one of the best-known breakthroughs. White can secure promotion if he is to move now: if it is Black's turn, there is no time to move the king closer, but after 1…b6! all breakthroughs are ruled out.

1.b6!

No matter what Black does now: a white pawn will reach the 8th rank. 1.Kd1? b6= (1…Kd4? 2.b6!+–).

1…axb6 (1…cxb6 2.a6!+–) **2.c6 bxc6 3.a6+–**

Preparing a breakthrough. An innocent couple of pawns



Position 12.42

This is an interesting position, as the two white pawns look harmless and we can learn a new technique here. Sometimes the breakthrough is more efficient if we first push the pawn which has an enemy pawn opposed.

This apparently harmless couple of pawns has caught out many players, among them Capablanca.

1.h6! and White wins. The king will not be able to stop the would-be passed h-pawn: **1…Ke6 2.g6+–**

13. Other material relations

This is the last chapter on endgame theory. Here we will deal with some endgames which, for different reasons, are quite important, even though the material balance on the board does not occur very often.

ENDING 93	Checkmating with Bishop and Knight

We start with the black sheep of all checkmates against a lone king. This ending has put many amateurs off because, though many books explain the procedure, it is not so easy in practical play. Some masters have already gone back home red-faced with embarrassment after failing or showing a poor technique in the execution of this checkmate.

It is true that this ending rarely surfaces in practical play, perhaps because the player with the advantage avoids this situation; moreover, the knowledge acquired cannot be applied to other endgames, unless we think that it can improve our understanding of bishop + knight harmonization. Despite all this, you *should* know it! It may be because failing to deliver this checkmate in a tournament game is a bitter pill to swallow, or because a good chess player must respect chess culture… but the thing is that you should know it. And that is what you are going to do.

Before we have a look at the positions, some preliminary considerations are useful.

A. The most recurrent mistake is probably the idea of trying to learn this checkmate in a mechanical way, as we do with a queen or a rook. You should forget about that. Checkmating with a bishop and a knight is easy, but not mechanical. At critical moments, some thought is needed. If we are aware of this, we will succeed. In the end, chess games demand some thought, don't they?

B. A king can be checkmated only in a corner of the bishop's colour. It is simply impossible to checkmate a king in the other corners.

C. It is also important that you are aware of mating images on the edge of the board. Checkmate on the edge cannot be forced, but in some variations those mating images help restrict the enemy king's way out.

D. From the worst possible starting position, you can deliver checkmate in 33 moves. This looks like very close to the legal limit (50 moves), as if we had a narrow margin of error, but it is not that bad. One inaccuracy will not make you lose many moves with good technique. There are just two key moments which demand accurate play to avoid going back to the starting position (which would be a real problem). Of course, those are the moments we will call to your attention.

Before we study the checkmating technique by means of an example, it would be a good idea to have a look at the series of positions 13.1-13.3 on the next page.

As we can see in these positions, which may (and usually do) arise while we are trying to checkmate our opponent with a bishop and a knight, both pieces, when coordinated and **always placed on the same-coloured squares**, are able to set up barriers against the enemy king. There are more barriers than those shown in these 3 diagrams. Thus the weak king's way out can be hindered at critical moments.



Position 13.1
Barrier



Position 13.2
Barrier



Position 13.3
The cage

In Position 13.1, the bishop and the knight need support from their king to cut off the black king's escape, but we assume they have it. If the black king were, say, on the b5-square, he would need a long walk to escape, and the white king would arrive in time to block his way without much trouble.

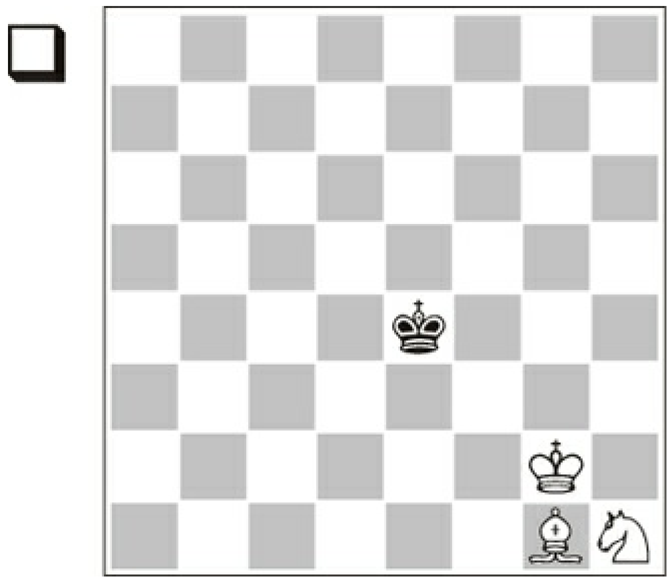
Position 13.2 arises at a very important moment in the final stage when White needs his king on d6 (and he is usually there).

Position 13.3 is the most remarkable. The barrier set up by bishop and knight is impossible to cross and the black king is locked in a **cage**. Thus White can play with total calm. Interestingly, this

position can arise in a normal sequence of play following the usual mating procedure, and the best thing is that the shortest mating manoeuvre leads to this position without wasting time.

You do not have to memorise these positions, it is enough to read the comments and have another look at the diagrams every time there is a reference to one of them. Now we are going to see an example. We will follow the classical procedure, although Deletang's Method (Deletang's Triangles) is also very valuable.

Actually, diagrams 13.1 and 13.3 are intermediate stages in Deletang's Method: these are the large and the middle triangle. I do not advise you to study two methods, but you should observe carefully Position 13.1 and understand that this disposition of pieces may be useful in the initial stage, that, is, cornering the enemy king.



Position 13.4

This is one of the worst starting positions for White, as his pieces are far from the centre of the board. With perfect play, White mates in 30 moves. Our play will not be perfect but logical, so we will waste 4 moves on the way.

Anyway, every time we waste a move, I will announce it. If then you find the quickest move more logical, that is fine. For Black, we will always show (in the main line) the best and most stubborn answers. First, we will define our plan:

1. Transferring our king to the centre, to drive the black king off.
2. Transferring the knight to the centre as well, since it is a short-range piece.
3. Pushing the black king to the edge, where he will head for a corner opposite to the bishop's colour (otherwise, checkmate comes sooner). We will call this corner a **Safe Corner**. Here, it is the a8-square.
4. Our king occupies a square on the long diagonal opposite to the corner (here, the c6-square). We will call this spot the **Pivotal Square**.
5. The knight drives the black king off the Safe Corner from c7 or b6.
6. The bishop drives the black king off the square adjacent to the corner from a7 or b8.
7. We force the black king to a corner of the bishop's colour (Mating Corner) by means of an accurate manoeuvre. We will give more details when the moment comes.
8. The black king is locked in the cage. See Position 13.3.
9. The white king stays a knight's jump away from the corner (f7 or g6). We will call this spot the **Mating Square**.
10. We arrange the checkmate, which will come by two consecutive checks, one with each piece.

The execution of Step 7 requires special attention.

1.Kg3 Step 1: Transferring the king to the centre.

1...Ke5 2.Kf3 2.Nf2! saves a move, but I stick to the plan.

2...Kd5 3.Kf4 Kd6 4.Ke4 Kc6 5.Ng3

Once the white king has reached one of the 4 central squares, we go to Step 2: Centralising the knight.

5...Kd6 6.Nf5+ Kc6 7.Ke5 Kd7 8.Kd5 Kc7 9.Bc5

Step 3: We push the black king to the edge. Here we are very likely to waste moves, as the quickest moves are not directly related to pushing the king. But this move follows a clear logic. The bishop gets ready to answer …Kd7 with Bd6, pushing the king to the edge straight away. 9.Nd6! Kd7 10.Nb5 saves one move, but I cannot see that it follows a logical plan.

9...Kb7 10.Kd6

This move pushes the black king. Again, 10.Nd6+! would save a move.

10...Kb8

10…Ka6 is a somewhat illogical attempt to flee towards the mating corner. However, it requires analysis as well. 11.Kc6 Ka5 12.Bd4 Kb4 13.Ne3 and the pieces have set up a barrier which (with the aid of the white king) will definitely lock the black king near the mating corner.

11.Kc6

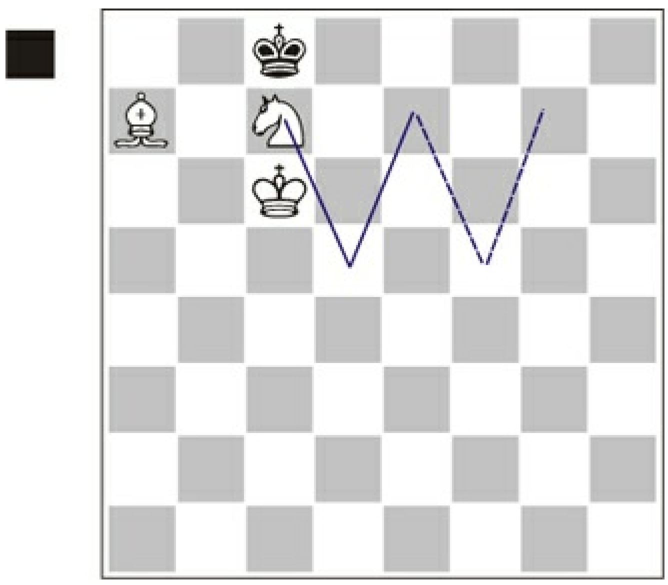
Step 4: The king occupies the pivotal square. The rest of the ending is purely mechanical.

11...Ka8 12.Nd6

Step 5: The knight gets ready to drive the king off the corner from the c7-square.

12...Kb8 13.Nb5 Ka8 14.Nc7+ Kb8 15.Bd4 Kc8 16.Ba7

Step 6: The black king is driven off the square adjacent to the safe corner.



Position 13.5
(analysis diagram)
(Knight's route)

The next phase is the most difficult in practical play. You should learn it by heart, but it is not so difficult if, after some analysis, you follow its logic.

Our task is to force the black king from the safe corner to the mating corner. In one variation the king leaves the edge and it looks like he manages to run into open field, but we have to be aware of this possibility and spoil his plans. We have a simple move to stop the king, and it is always the same.

Remember this procedure by the moment. The knight must be on c7, as here, in order to drive the king off the corner, and from there its route will be the one marked in the diagram. The knight will go from the 7th rank to the 5th, and then from the 5th to the 7th, at least once, drawing a V. Then the route will depend on the black king's decision at the critical moment. Against stubborn resistance (the king stays on the edge) the knight must repeat the jump from the 7th to the 5th and from the 5th back to the 7th (thus drawing a full W); if the king tries to escape, the white pieces will first set up a barrier and then the knight will move to build the cage.

Who do you think was the inventor of this manoeuvre? Yes, it was Philidor!

16...Kd8 17.Nd5 Ke8 18.Kd6

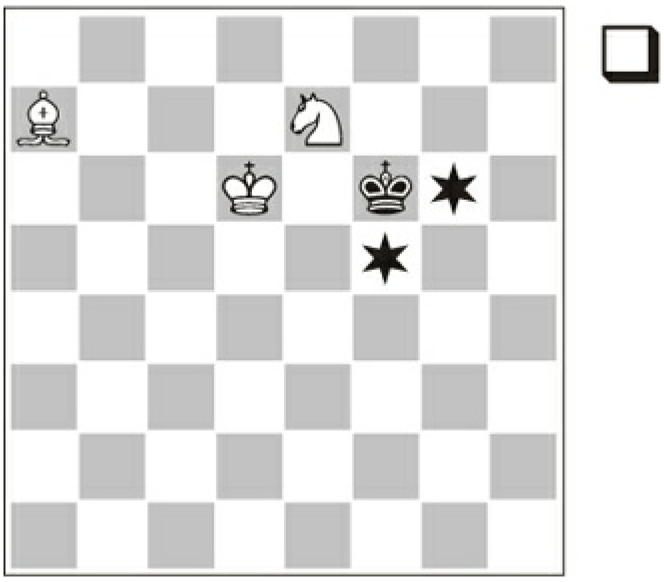
And now the king must make a decision. In practical play, the main concern for White is the attempt to escape. It is also the longest line.

18...Kf7

18…Kd8 is weaker. Here the knight repeats its manoeuvre (7th-5th and 5th-7th). By now, the knight must complete the first cycle. 19.Ne7 Ke8 20.Ke6 Kd8 21.Bb6+ (again, the bishop drives the king off a dark square) 21…Ke8 22.Bc7 (zugzwang again) 22…Kf8 23.Nf5 (the knight repeats the route) 23…Ke8 24.Ng7+ Kf8 25.Kf6 Kg8 26.Kg6 (26.Ne6 Kh7 27.Bf4 Kg8 28.Kg6 Kh8 29.Kf7 Kh7

30.Nf8+ Kh8 31.Be5 mate) 26…Kf8 27.Bd6+ (and again the bishop watches the dark squares) 27…Kg8. By the way, the white king occupies the mating square. And now White just has to prepare two consecutive checks to deliver checkmate: 28.Nf5 Kh8. If we deliver two checks, the king escapes, doesn't he? OK, so waste a move! 29.Bc5 Kg8 30.Nh6+ Kh8 31.Bd4 mate.

19.Ne7 Kf6



Position 13.6
(analysis diagram)

Apparently, the king has succeeded; just an optical illusion. Note that the knight controls two squares. I am sure you already know which square is the bishop's responsibility (g5) and, therefore, which is the right move here (Position 13.2). In the event of 19…Kg7, the same move would be good, as then the bishop would control the h6-square so that the king could not escape.

20.Be3!

This is relatively the most difficult move in this ending, but only if you did not know it. On the right, the bishop and the knight set up a barrier hindering the king's way out; on the left, the white king cuts off the way.

20...Kf7 21.Bg5

The bishop starts to build the cage.

21...Ke8 (21…Kg7 allows an easier win: 22.Ke6) **22.Nc6**

The knight joins the bishop in building the cage.

22...Kf7 23.Ne5+ Ke8 24.Ke6

The cage is ready. Now have another look at Position 13.3.

24...Kf8 25.Kd7 Kg8 26.Ke8

26.Bh6! saves a move. This makes sense, as a new cage is built, but I find the king move more natural.

26...Kg7 27.Ke7 Kg8 28.Bh6 Kh7 29.Bf8 Kg8 30.Ke8 Kh8 31.Kf7

The king occupies the mating square.

31...Kh7 32.Ng4 (setting up the checkmate…) **32...Kh8 33.Bg7+ Kh7 34.Nf6 mate**

Now have a quiet look at Positions 13.5, 13.6 and 13.3. Do not try to memorise them. Just think about the significance of each of them. They represent 3 critical moments in the mating execution following the classical procedure. With any other procedure, they would be almost unavoidable.

Rook + Bishop vs. Rook

The Rook + Bishop vs. Rook ending is quite common in tournament practice. Although most positions are evaluated by theory as drawn, the stronger side usually gets good results in practice. This is because the defence is quite difficult and, above all, tedious, and when we are tired we can fall into a losing position, or make a gross mistake.

Nowadays, as rates of play get faster and quick-play finishes are the norm, the knowledge of the defensive procedures is a must for a player to hold this endgame in an actual game. Attacking technique is also difficult, and therefore its prior study is always useful but, since the defender usually fails to find the most tenacious moves, an approximate idea of the winning plan is enough

to execute it without precise memorisation.

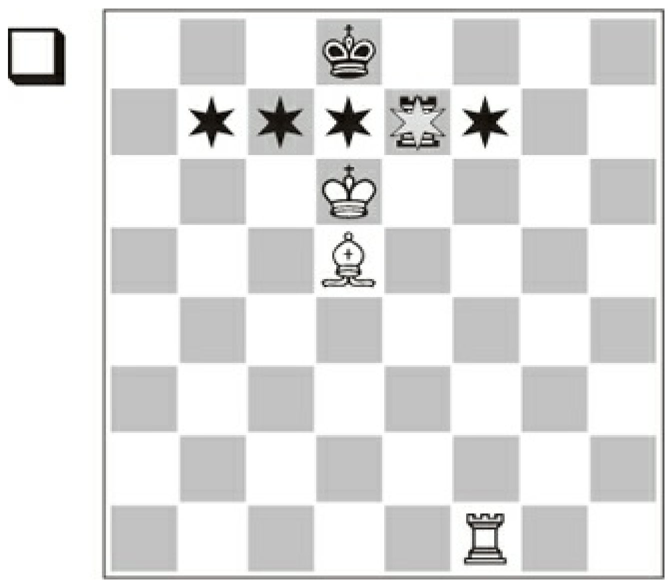
ENDING 94	The king is on the edge

Philidor Position

Winning chances necessarily (apart from blunders, of course) involve pushing the defending king to the edge of the board and placing the strong king in opposition. However, this is impossible against accurate defence. In positions like this, White wins by means of an accurate sequence which Philidor already analysed in the 18th century.

Once we analyse all the subtleties, we can only take our hat off to the French genius' analytical accuracy and the enormous display of talent involved. This is just another instance of what the human mind was capable of before analysis engines appeared.

The diagram position is known as the Philidor Position and its defining features are the position of the kings and the bishop. Black can hold the draw if he is to move, but only 1…Rd7+ works. Therefore, if this check is impossible (for instance, if the rook is on e2), White wins even with Black to move.



Position 13.7

White plays and wins. The winning sequence is long and complex, therefore difficult to remember, especially if we consider that many years may pass before this position arises in one of our games. Therefore, it is worth analysing this ending carefully and fixing its basic ideas in our mind. Then we are likely to be able to replay the winning sequence on the board if we have enough time. The first thing to notice is that the white king and his bishop have set up a screen to cover most of the squares surrounding the black king.

1.Rf8+!

The first move is obvious: White seizes control of the 2nd rank from the black rook.

1…Re8 2.Rf7

Now Black has a tough choice. White threatens Ra7-Ra8, so the black rook must leave the back rank. The difficulty lies in deciding between e3, e2 or e1.

2…Re2!

This is the best square, because now the rook will check the white king from a dark square and the white bishop cannot stop it. This idea may help us remember the sequence in the future. Now White must play a waiting move and force the black rook to leave its ideal spot. Other moves lose quickly, but the variations are interesting, as attacking manoeuvres are recurrent.

2…Kc8?! 3.Ra7 Rd8+ 4.Kc6 Kb8 5.Rb7+ Ka8 (5…Kc8 6.Be6+) 6.Rb5 Ka7 7.Ra5+ Kb8 8.Kb6+– and Black cannot avoid checkmate; 2…Rh8?! 3.Ra7 Rh6+ 4.Be6 with a quick finish.

3.Rh7! Re1!

King moves would lose and the rook would not be as efficient on the e3-square. For instance: 3…

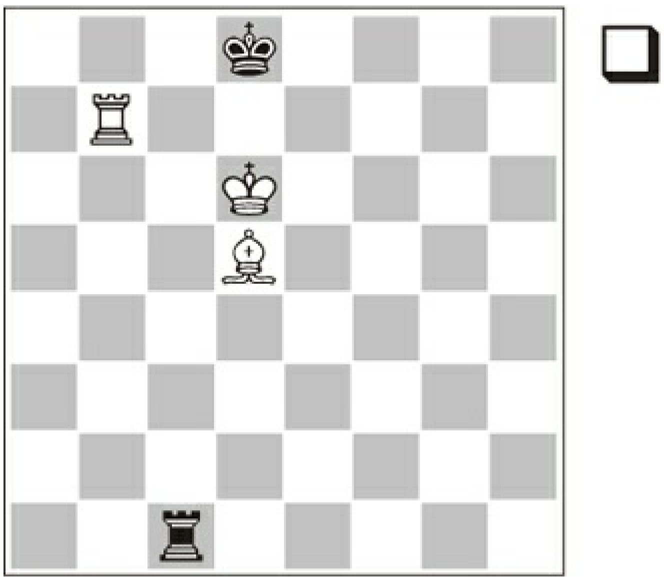
Re3 4.Rd7+. This time-winning check, intending to place the rook on the 4th rank with the lethal threat Bc6+, is one of the standard resources in this position. Black treads a narrow path: 4…Ke8 (4…Kc8 5.Ra7+– and mate, as Rb3 is impossible) 5.Ra7 Kf8 6.Rf7+ (again a time-gaining check) 6…Ke8 7.Rf4! (threatening 7.Bc6) 7…Kd8 (7…Rd3 8.Rg4) 8.Be4!+–. The point. The black rook is now impotent: no checks, no way back to the back rank and no defence against the mating threat.

4.Rb7

Another typical resource: the rook is transferred to the other wing. Now the black rook has fewer squares than after 4.Bb3 Re2!, when it returns to its ideal defensive rank.

4...Rc1

4…Kc8 5.Ra7 Rb1 6.Rf7! (the rook moves once more to the other wing) 6…Kb8 (6…Rb6+ 7.Bc6) 7.Rf8+ Ka7 8.Ra8+ Kb6 9.Rb8++– winning the rook.



Position 13.8

5.Bb3!!

The great point of the ending. The bishop controls the d1-square, avoiding a rook check, and the c2-square, hindering the black rook's path to the second rank. Moreover, Black is in zugzwang now: the king cannot move and the rook must move to a less favourable position.

5...Rc3

5…Kc8 6.Rb4 (threatening 7.Be6+) 6…Kd8 7.Rh4 Re1 (7…Kc8 8.Bd5 Kb8 9.Ra4 and mate) 8.Ba4! (another great move, threatening mate and controlling the d1-square at the same time) 8…Kc8 9.Rb4+– and Black is defenceless against Bd7.

6.Be6 (posing a mate threat) **6...Rd3+ 7.Bd5**

Due to the mate threat, the black rook cannot return to its defensive position.

7...Rc3

Now White has a similar manoeuvre as the one explained against 3…Re3:

8.Rd7+ (again this time-winning check comes handy) **8...Kc8** (8…Ke8 9.Rg7+– and mate, as Rf3 is impossible) **9.Rh7 Kb8 10.Rb7+** (winning time again) **10...Kc8 11.Rb4** (threatening 12.Be6+ and preparing the next move) **11...Kd8** (11…Rd3 12.Ra4+–) **12.Bc4!+–**

This is almost the same position as at the end of the 3…Re3 line.

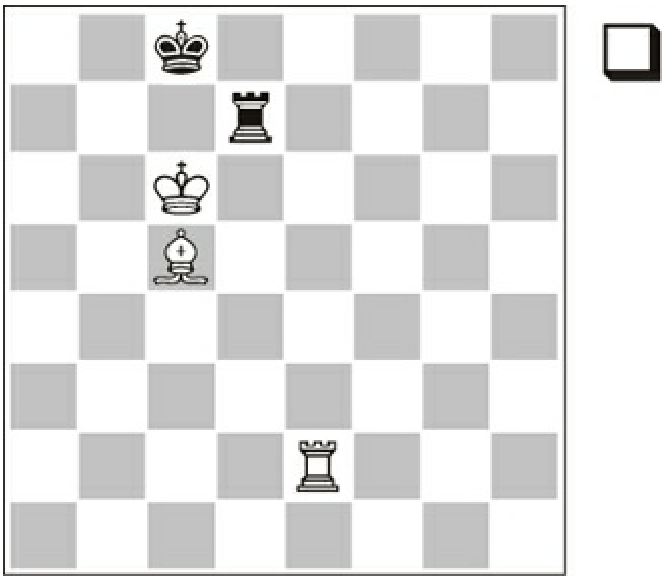
If you have carefully followed the analysis, you are likely to be able to find the winning sequence right now without checking the book. However, probably you have also realised that it is extremely complex and impossible to keep in our long-term memory.

Many grandmasters have gone astray after reaching the Philidor Position. Moreover, during a Spanish Team Championship years ago (Ponferrada 1992), a game Celaya-San Claudio was adjourned and then some grandmasters tried unsuccessfully to replay the winning sequence. That is why I consider a summary of the main ideas necessary. If we fix these ideas and we have enough time and concentration, we will be able to find the right moves on the board.

Summary of main ideas:
The best ranks for defence are the 2nd and the 1st (from Black's side of the board, the 7th and 8th ranks)
The best one is the second rank, as the checking square for the rook is the opposite colour to the bishop's.
In order to drive the defending rook off the 2nd rank, zugzwang is necessary.
Once the defending rook has relinquished the 2nd rank, the strong side must combine time-winning checks with a switch of the rook from one wing to the other (thus worsening the defending rook's position), in order to prepare the critical bishop's move.
The critical bishop's move must control the defending rook's checking square.

Same position shifted one file to the left (Lolli)

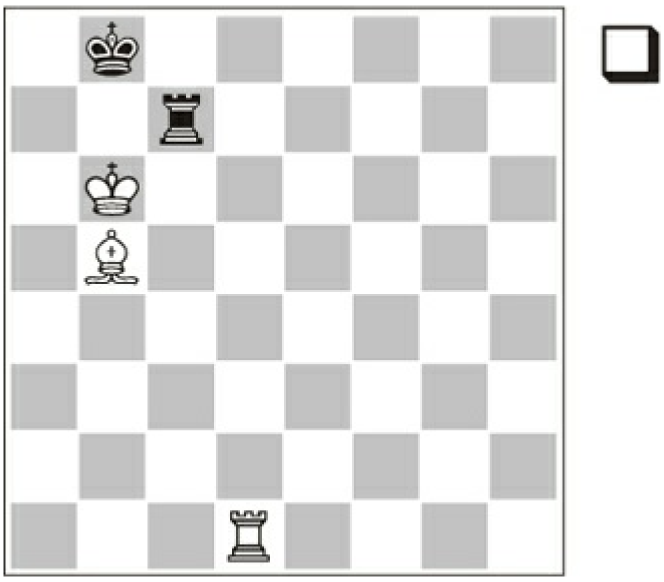
Philidor's method is equally winning on the 4 central files; however, on the bishop's file some new variations arise. This analysis was carried out by Lolli. We present it here without comments.



Position 13.9

1.Re8+ Rd8 2.Re7 Rd2
2...Rh8 is another defensive method not possible on the central files; it also fails here: 3.Ra7 Kb8 4.Rb7+ Ka8 (4...Kc8 5.Bd6+–) 5.Bd6 Rh1 6.Rg7 Rc1+ 7.Bc5 Rb1 8.Rg4 and Black cannot stop the mating sequence starting with Ra4.
3.Rf7 Rd1 4.Ra7 Rb1 5.Ba3 Rb3 6.Bd6 Rc3+ 7.Bc5 Rb3 8.Rc7+ Kb8 9.Rh7 Ka8 10.Ra7+ (10.Rh4 wins one move quicker) **10...Kb8 11.Ra4 Kc8 12.Bb4+–**

Same position, knight's file (Lolli)



Position 13.10

However, Philidor's method does not work on the knight's file. This position is known as Lolli's

Position and it is a draw. Since Black's moves are forced, which sometimes makes things easier, we can use it as a defensive resource when in trouble.

It is very important to note that here, the defender should move the king towards the corner of the same colour as the bishop. You could think that this is a safe drawing method, and it is, actually, if you are a computer, but Black is on a knife edge, so I do not recommend it. In principle, you do not need to study this method. I will show you some lines with a few comments.

1.Rd8+ Rc8 2.Rd7 Rc1 3.Rf7 Rc2 4.Rg7

Waiting strategy leads to nothing, as there is no zugzwang.

4...Rc1 5.Ba4!

The most dangerous move.

5...Rc3 (5...Rb1+ also draws, but the text is more illustrative for our purposes) **6.Bc6 Rb3+! 7.Bb5 Rc3! 8.Bc6 Rb3+ 9.Kc5**

The king heads for d6 and Black cannot stop him.

9...Rb1

Other moves may also draw but, as we said, it is better to have a clear idea and the edge of the board is a good reference.

10.Bd5

If 10.Kd6, the only move is 10...Rf1!.

10...Rf1!

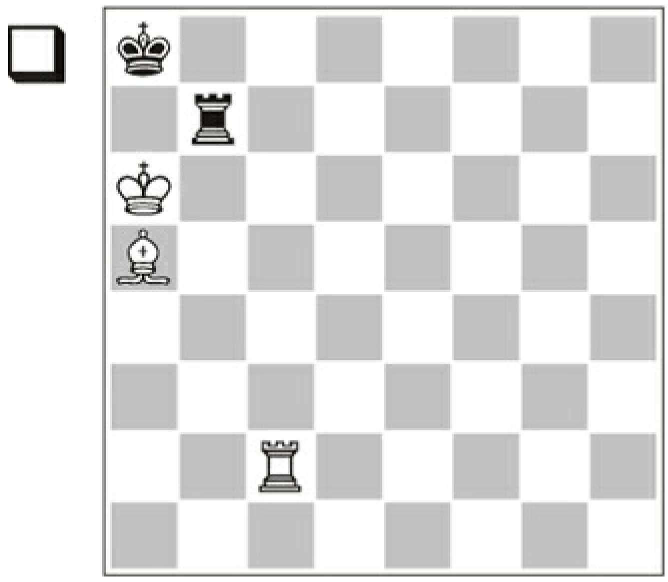
Black has to be ready to deliver checks on the 6th rank.

11.Kd6

Building a sort of Philidor Position with the black king on b8 instead of d8. Another attempt would be 11.Rb7+!? Kc8 12.Re7 Kb8! 13.Kb6 Rc1! 14.Be6 Rb1+ 15.Kc6 Rc1+ 16.Kd6 Rh1 17.Bd5 Rh6+=.

11...Rf6+! 12.Be6 Rf1 13.Rg8+ Ka7! 14.Bd5 Rd1 15.Ra8+ Kb6 16.Rb8+ Ka7 17.Ra8+ Kb6 18.Ra2 Rb1 reaching the second-rank defence (see below).

Same position, rook's file



Position 13.11

The position on the rook's file is also lost. I present here the analysis without comments. The winning procedure is very similar to that used in the case of the bishop's file.

1.Rh2 (1.Rc8+ Rb8 2.Rc7 Rb7!) **1...Rb1** (1...Ra7+ 2.Kb6 Rb7+ 3.Kc6 Rb1 4.Bc3! Rb7 5.Rg2!+–) **2.Rh6** (2.Rh3 Rb7 3.Bb6?? Ra7+!=) **2...Rb7 3.Bb6 Ra7+ 4.Kb5 Rf7 5.Kc6 Rf8 6.Bc7 Rg8 7.Bd6 Re8 8.Rh1+–**

ENDING 95	The king is far from the edge. Cochrane Defence

In the starting position of most R+B vs. R endings, the defending king can be anywhere, far from

the edge of the board. There are many possible moves, and therefore it is impossible to carry out a thorough analysis. Nevertheless, if you want to succeed in this ending, you need to know some key manoeuvres which work as patterns. We will study these ideas from the defender's point of view, showing that with accurate play he can hold. The first idea we must get rid of is that the king has to stay near the centre of the board. Sooner or later, the defending king will have to move to the edge of the board and when that happens, it should be in the most favourable conditions.

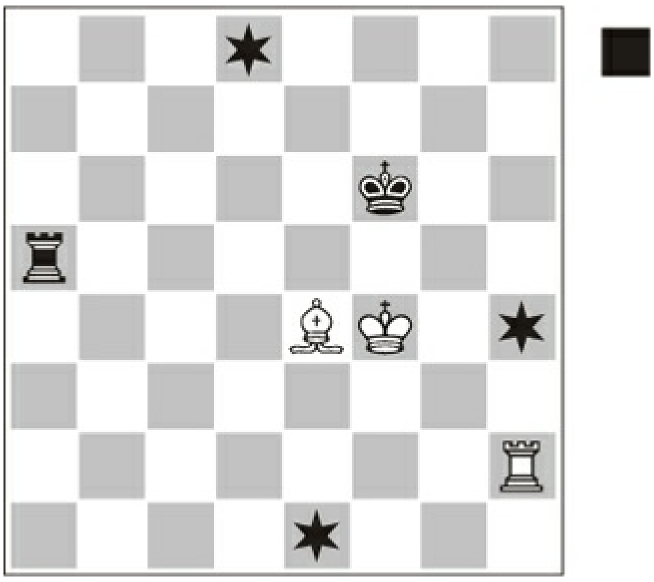
There are two well-known defensive procedures:

1. Second-rank defence.
2. Cochrane Defence.

Though both are correct, the stronger side has enough resources to cause trouble. From a normal position, the simplest way to defend this ending is adopting the Cochrane Defence. In this example we are going to see what this defensive method involves, and I will try to provide you with some landmarks so that you can find your way to this position and stick to it.

The features of the Cochrane Defence are the following: the rook pins the bishop on one of the central files (or ranks) in a way that the distance between the kings is one rank (or file) longer than in the Philidor Position, as shown in Positions 13.14 and 13.15.

To achieve this, Black must focus now on the 4 central lines (e- and d-files, 4th and 5th ranks) and know beforehand which sides his king and rook must occupy at the critical moment. The 3 marked squares (apart from the one the rook occupies now) represent the possibilities for the rook; therefore, the king must stay in the opposite zone.



Position 13.12

Budnikov – Novik

Moscow 1991

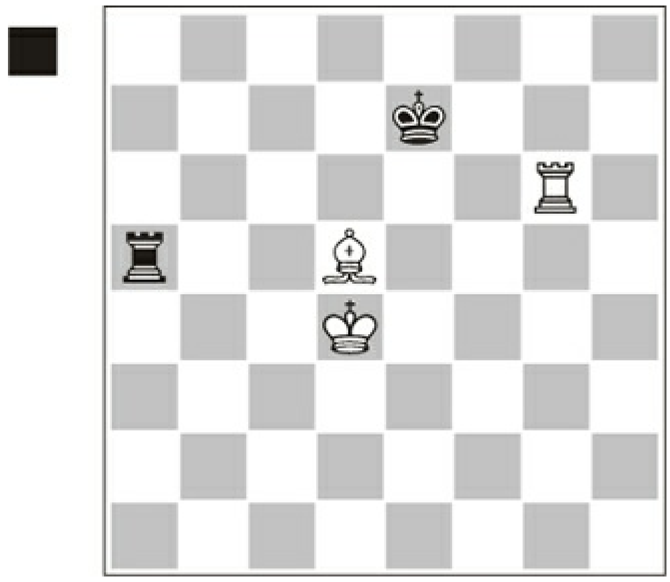
1...Rb5

For the moment, Black can wait. The best waiting strategy involves cutting off the king's way with the rook to force White to use the bishop to cross.

2.Rh6+ Ke7

For the time being, Black should always move towards the centre.

3.Ra6 Rc5 (continuing to wait) **4.Bd3 Rc7 5.Ke5 Rc5+ 6.Kd4 Rg5** (keep on waiting with the rook on the 5th rank) **7.Be4 Rh5 8.Rg6 Ra5 9.Bd5!?**



Position 13.13
(analysis diagram)

White has no other way to make progress. This is the first critical moment. The white king is going to reach the 5th rank. Black turns immediately to the 4 ideal squares for his rook. Only one lies in the zone opposite to the black king, so that is where the rook goes.

9...Ra1!

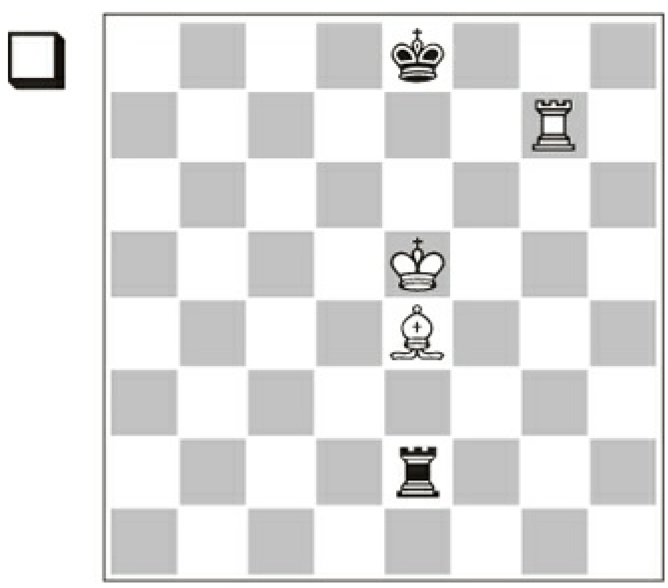
Actually, all sensible moves draw, but this follows our defensive method.

10.Ke5 Re1+ 11.Be4 Re2

As long as the white bishop is pinned, waiting is the best strategy.

12.Rg7+ Ke8

All moves draw, but the simplest way is to keep the kings opposed until White leaves the pin.



Position 13.14
(analysis diagram)

This is the standard position for the Cochrane Defence. You should study it carefully, as it can save you many half points. The rook pins the bishop, preventing White from reaching the Philidor Position, while the king just waits on the edge of the same file.

13.Ra7 Re1 (waiting) **14.Kd5!?**

White has to break Black's waiting set-up and so he moves his king. Now the black king must move in the opposite direction. After 14.Kf5 Kd8 the simplest way would be 15.Bd5 Re7 16.Ra8+ Kc7 and the king leaves the edge of the board.

14...Kf8!

It is important to note that 14...Kd8? would be losing: 15.Kd6!+– and White reaches the Philidor Position.

15.Bf5

We have reached an intermediate stage. The white king still does not threaten to oppose his black counterpart, and that will take White many moves, but this 'innocuous' phase can be dangerous. Some guidance is necessary here. The simplest way to draw is the second-rank defence, which also allows Black to get his king from the edge.

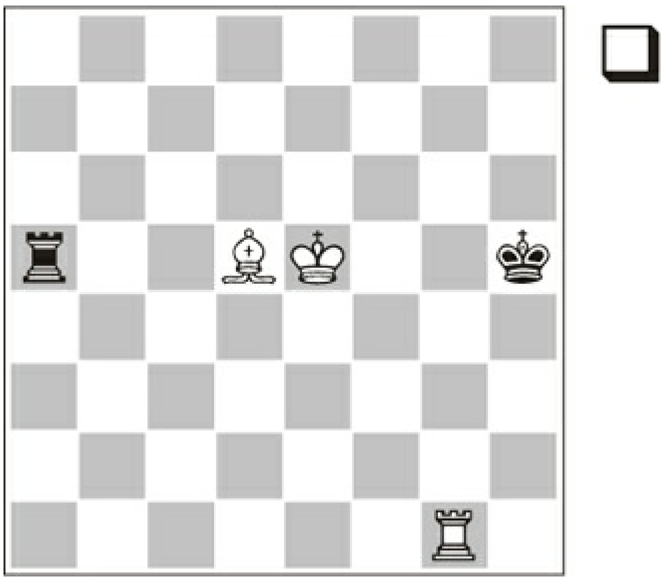
15...Re7 16.Ra8+ Kf7 17.Ra1 Kf6 18.Bc8

Let us compare this situation to the starting position. The black king is on the same square. The white king is again cut off, then along the 5th rank, now along the e-file. Black keeps the white king cut off for a few moves.

18...Re5+ 19.Kd6 Re2 20.Rf1+ Kg5 21.Bb7 Re3 22.Kd5 Re2 23.Kd4 Re7 24.Bd5 Re8 25.Rf7 Rb8

The rook gets ready to pin the bishop once more and move to the side opposite to the file where the black king is. Another way of doing the same, perhaps more natural, would be: 25…Re1 26.Be4 Ra1 27.Ke5 Ra5+ 28.Bd5 Rb5, reaching the same position as in the game after move 26.

26.Ke5 Rb5 27.Rf1 Ra5 28.Rg1+ Kh5



Position 13.15
(analysis diagram)

And, again, we have reached the basic defensive position of the Cochrane Defence.

29.Rh1+ Kg5 30.Rb1

White plays around, but Black is fully awake and waits.

30...Kh5 31.Rg1 Rb5 32.Kd4

Once again, White unpins his bishop, and once more Black then moves his king in the opposite direction.

32...Kh6 33.Be4 Rg5

And again the rook stands in the middle, freeing the black king from the edge.

34.Rf1 Kg7 35.Bf5 Kf6 36.Ke4 Ke7 37.Rd1 Rg2 38.Rd7+ Kf6 39.Rd6+ Ke7 40.Re6+ Kf7 41.Ra6 Re2+ 42.Kd5 Ke7

The rook and the king stand on the two extremes of the file.

43.Be4 Rd2+ 44.Ke5 Re2

We have the basic defensive position of the Cochrane Defence for the third time. This position is almost the same as in Position 13.14 after move 12.

45.Re6+ Kd7 46.Rh6 Ke7 47.Rh7+ Ke8 48.Ra7 Re1 49.Kd5 (unpinning the bishop) **49...Kf8**

The king moves in the opposite direction and back to the start.

50.Bf5 (50.Rb7 Ke8) **50...Re7 ½-½**

ENDING 96 — Second-rank defence

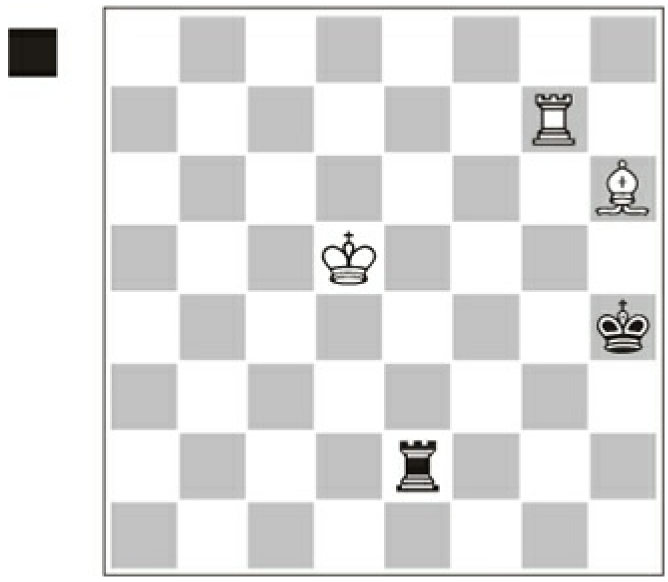
As we have stated, the Cochrane Defence works extremely well on the central files, and it is rather easy to achieve from a normal position.

When the starting position of the king is more delicate, or when a careless defence makes it impossible to use the main defensive method, it is sometimes still possible to adopt the so-called second-rank defence.

This is a simple and unbreakable defensive set-up, despite its somewhat worrying appearance.

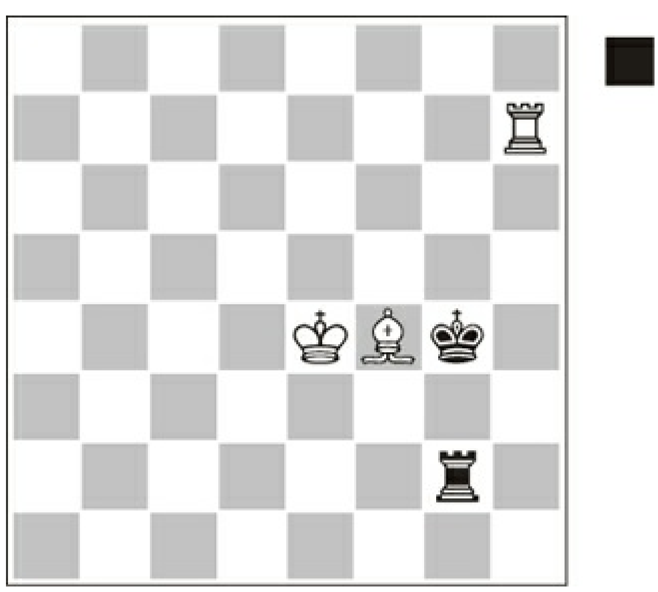
The second-rank defence consists in placing both rook and king on the second rank. When a check forces the king to the first rank, an immediate rook-swap offer emerges on the board, which allows the king to come back to the 2nd rank on the following move.
The king may also be forced to the first rank by means of zugzwang, but then the defending side can hold thanks to stalemate resources.

In the following position, the black king is already locked on the edge of the board. Though no concrete threats can be seen, he may end up in the Philidor Position if he is not careful. It is time to use the second-rank defence.



Position 13.16
García González – Balashov
Leningrad 1977

1...Kh3!
Instead of playing neutral moves which may lead to dangerous positions, Black immediately seeks a defensive procedure. The idea is ...Rg2.
2.Bf4 Rg2 3.Rh7+ Kg4 4.Ke4
This is one of the basic positions of the second-rank defence. Although Black has apparently fallen into zugzwang, he has a simple way to hold. The fact that the situation is extreme can help us find our way, but even experienced players may go astray in this ending.



Position 13.17
(analysis diagram)

4...Rc2?
A surprising mistake that allows White to reach the Philidor Position. The obvious way was correct: 4...Re2+! 5.Be3 Rg2 and Black holds. For instance: 6.Rg7+ Kh3 7.Bg5 Kg4 8.Rg8 Kg3 9.Bf4+ Kh3 10.Rh8+ Kg4 and we have the same position with White to move, but White cannot cause trouble.

5.Be3?

White misses an opportunity to reach the Philidor Position. 5.Rg7+ Kh4 6.Kf5 Rc5+ 7.Be5 and White's set-up is lethal.

5...Rg2

Black returns to the right way.

6.Rh1

Another interesting, but well-known, zugzwang attempt. Once again, despite the distressing appearance of Black's position, he manages to draw by keeping both pieces on the second rank by means of only moves.

6...Kg3! (6…Rg3!=) **7.Bf4+ Kf2**

Black shifts from the g-file to the genuine 'second rank', maybe because it is easier to record the moves on the score sheet… 7…Kg4=.

8.Rc1 Ke2 9.Rc3 Kf2 10.Ra3 Ke2 11.Bg3!?

This is the zugzwang position we mentioned in the introduction. Again, Black has only one method, but it is simple and safe.

11...Kf1! (11…Kd1!=) **12.Rf3+**

12.Kf3 Rf2+!= is a well-known stalemate resource; White does not want to try.

12...Ke2 13.Re3+ Kd2!

Now it would be wrong to play 13…Kf1?? 14.Re1#. The threat is …Re2, forcing an immediate draw.

14.Kd4

14.Kf3?! Rxg3+=.

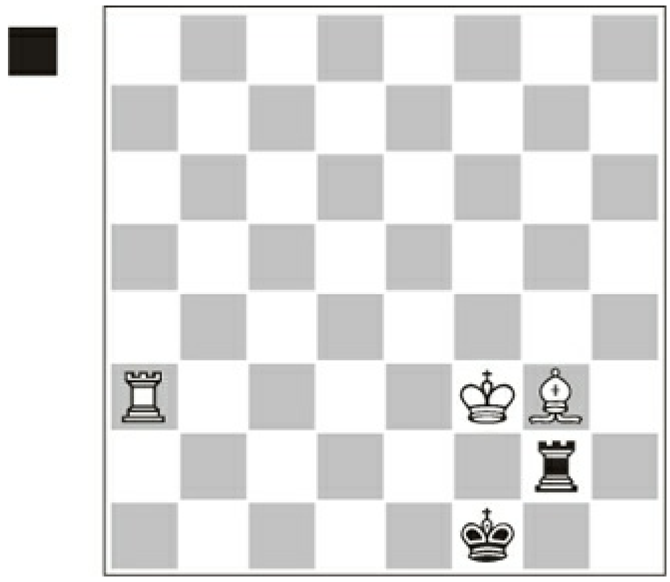
14...Kd1

The king may move to the 1st rank as long as it is guaranteed that he will quickly return to the second rank.

Anyway, it was not forced: 14…Re2! 15.Ra3 Kc2=.

15.Ra3 Ke2 16.Ke4 Kf1 17.Kf3

At last White decides to try the stalemate resource.



Position 13.18
(analysis diagram)

17...Rf2+!

The only move – but enough.

18.Kg4

18.Ke4 would lead to a repetition.

18...Rc2

Transferring the rook to the other side; almost every rook move on the 2nd rank draws: 18…Re2=; 18…Rd2= – but not 18…Rg2? 19.Ra1+ Ke2 20.Kh3 and the rook is trapped.

19.Re3 Re2 20.Rf3+ Kg2 21.Rf4 Ra2 22.Re4 Rc2

The black rook always keeps an eye on the 2nd rank, while White is running out of ideas.

23.Bd6 Kf1

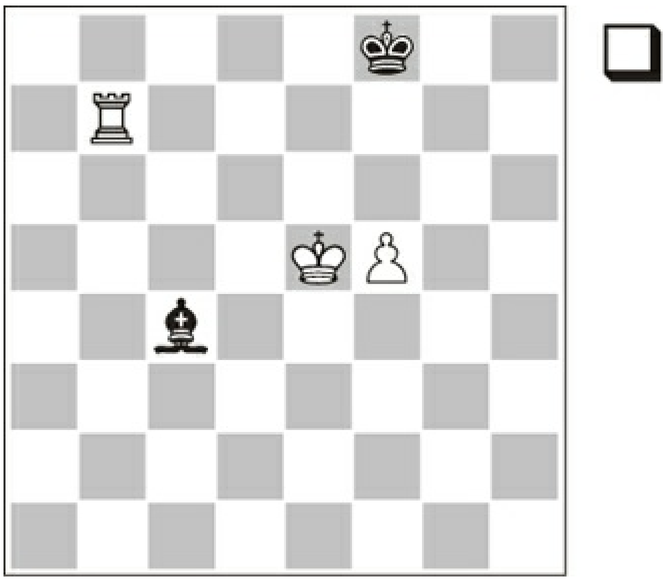
Black gets ready for second-rank checks. A waiting strategy was still possible: 23…Ra2=.

24.Bb4 Rg2+ 25.Kh3 Rc2 26.Ba5 Ra2 27.Bb6?!

White creates a stalemate theme, and Black uses it to drive the white king off and gain some moves.
27...Ra3+ 28.Kg4 Rg3+ 29.Kf4 Rf3+ 30.Ke5 Kg2 31.Re2+ Kg3 ½-½

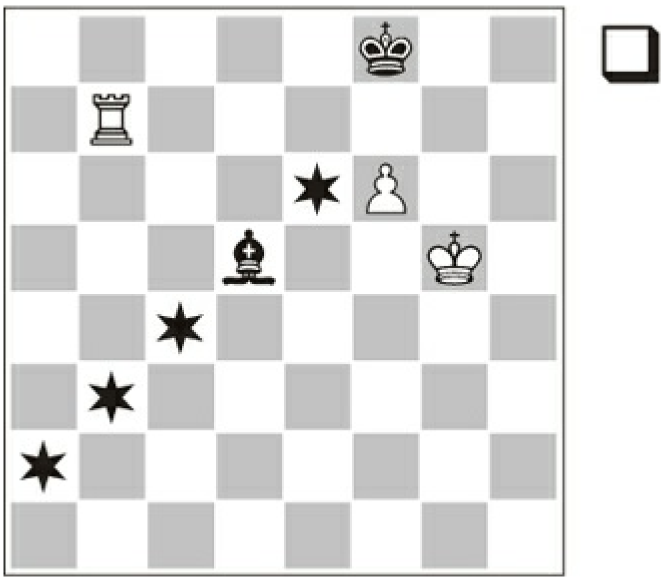
ENDING 97	Rook + 6th-rank bishop's pawn

In spite of the great material advantage, a rook and a pawn are unable to win against a lone bishop in certain positions. Apart from those situations where the pawn is lost by force, or a few positions where the defending side is unable to capture the pawn but forces the stronger side to a passive defence, a rook and a pawn usually win against a minor piece.
Nevertheless, in the case of a bishop, there are some positions where the rook cannot break the defence. All of them occur near the bishop's 'right' corner (see **Ending 7**).
The first drawn position involves a 6th-rank bishop's pawn. Let us have a look at the following diagram:



Position 13.19

1.f6?
A gross mistake. White could easily win if the king moved ahead of the pawn, a well-known rule applied to other endgames: 1.Kf6 Kg8 2.Ke7 Kg7 3.f6+ Kg6 4.Rb1 Bd5 5.Rg1+, followed by f6-f7.
Now Black can draw relatively comfortably, just by following this rule: **The bishop must stay along the a2-g8 diagonal, avoiding the g8- and f7-squares and thus being able to deliver a check if the white king moves to g6.** Here's how:
1...Ba2 (1...Bg8? – as we have said, this square is mined: 2.f7! Bxf7 3.Kf6+–) **2.Kf4**
2.f7 is an interesting attempt, but now Black is not forced to capture immediately. 2...Kg7!, followed by 3...Bxf7=.
2...Bc4
Apparently, all moves are OK, but Black should not play carelessly. 2...Kg8? leads to an instructive defeat: 3.Kf5 Bc4 4.Kg6 Bd3+ 5.Kh6 and as now both black pieces are misplaced, there is no time to stop f6-f7: 5...Kf8 (5...Bc4 6.f7+!+–) 6.f7 Be4 7.Rc7 Bb1 8.Rc1! (8.Kg5? allows 8...Kg7=) 8...Ba2 9.Kg6 Bxf7+ 10.Kf6+–.
This line illustrates that, if the defending pieces do not occupy their ideal squares all the time, the stronger side can cause trouble.
3.Kg5 Bd5!
This is the only move here. The black bishop must always have a check when the white king occupies g6, and White cannot control the whole diagonal. The bishop must always stay on one of the marked squares except when delivering a check.



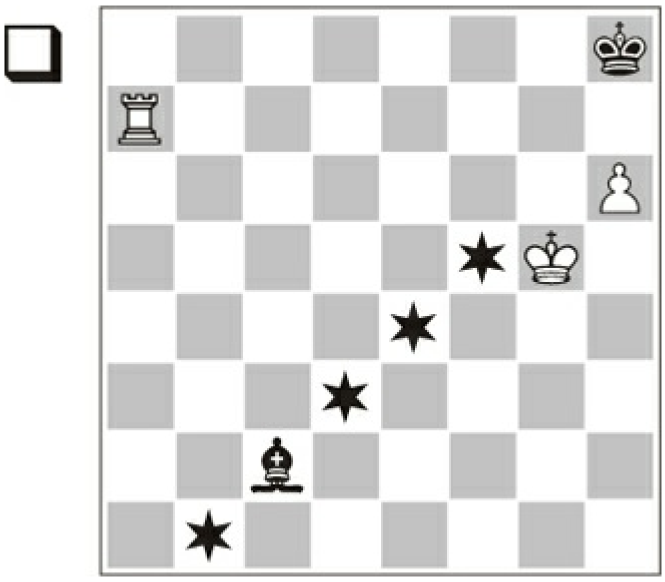
Position 13.20
(analysis diagram)

4.Rc7 Ba2! 5.Kg6 Bb1+! 6.Kh6 Ba2!
Now there is time to return to the diagonal.
7.Ra7
If 7.f7 Bxf7!=. When the king is on the h6-square, the pawn can be captured.
7...Bc4=
There is no way to make progress.

ENDING 98	Rook + rook's pawn vs. Bishop

Pawn on the 6th rank

Here defence is even easier. The defender just has to keep his bishop along the diagonal controlling the pawn's advance (here, the h7-square) and capture the pawn when it reaches that square. Then **Ending 7** arises.



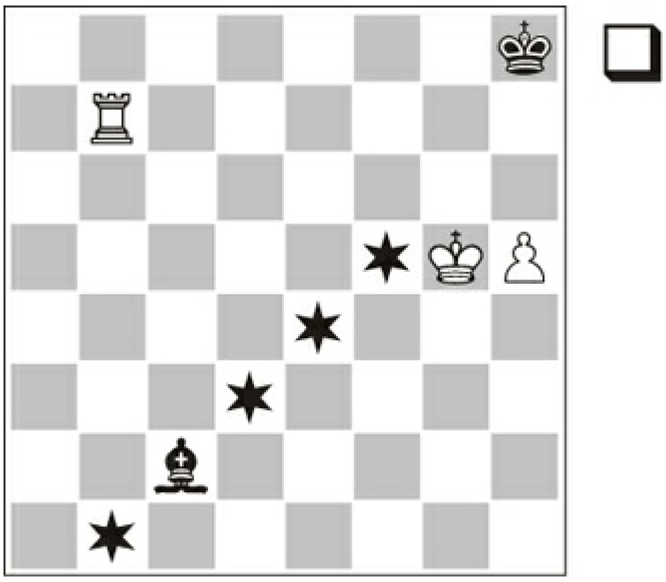
Position 13.21

1.Rc7 Bd3!
1...Bb3? loses easily: 2.h7 Bd5 3.Kh6+–. Or also 1...Bh7? 2.Rc8+ Bg8 3.Rd8 Kh7 4.Rd7+ Kh8 5.Kg6+–.
2.Kf6 Be4 3.h7 Bxh7=

Conclusion: A rook and a 6th-rank rook's or bishop's pawn cannot win against a bishop near the bishop's right corner.
Other pawns win, but the ending with the central pawn is also quite difficult.
Therefore, when possible, it is better to move the king ahead of the pawn.

Pawn on the 5th rank

When the pawn is on the 5th rank, the ending is still drawn, but it requires a more accurate defence. This has caused many strong players to go astray. See Position 13.22.



Position 13.22

The first important rule to know is something we could infer from the previous example: **The bishop must occupy the diagonal where it can control the pawn's advance to the 7th rank.**

1.Ra7 Bd3

Leaving the right diagonal with 1…Bb3? is careless and it will be punished. However, this is a quite frequent mistake, the reason probably being the similarity between this position and the Rook vs. Bishop ending, which leads to the erroneous feeling that, as long as our bishop can cover the check, we are safe. 2.Kh6. Now there is no time for the bishop to return to the saving diagonal:

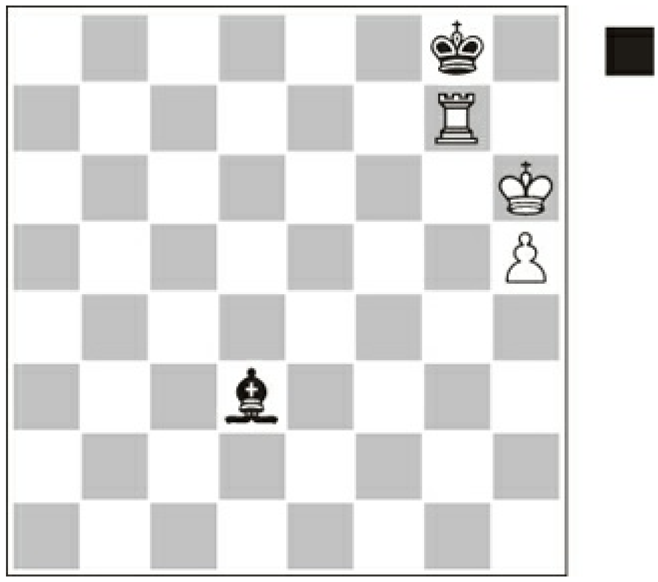
A) 2…Kg8 3.Rg7+ Kh8 (3…Kf8 4.Kg6 followed by Kf6, h6, h7 and h8) 4.Rc7 (controlling the c2 check and threatening Kg6) 4…Ba2 5.Rc8+ leads to similar positions to the variation 2…Bc4.

B) 2…Bc4 3.Ra8+ Bg8 4.Kg5 Kh7 (4…Kg7 5.h6+ is similar) 5.h6 Bd5 6.Ra7+ Kh8 7.Re7! (the rook covers the square the bishop needs in order to return to the right diagonal, and at the same time avoids a well-known trap which only works when the rook is on the a7-square. This trap has occurred in some actual games: 7.h7? Be4 8.Kh6 Bb7!!= and there is no way to win due to stalemate resources: 9.Ra4 Be4!). 7…Bg8 8.Kg6 Bc4 9.h7+– followed by checkmate on the 8th rank.

2.Kh6 Kg8!

Knowing that the bishop must not leave the b1-h7 diagonal, this odd-looking move is easy to find. If we ignore that rule, it is very easy to fall into the 'logical' defence mentioned in the previous note.

3.Rg7+



Position 13.23
(analysis diagram)

3.Ra8+ Kf7 and, though the black king has left the corner, his white counterpart cannot get in: 4.Kg5 Bc2 5.h6. It is interesting to know that, even with this disposition of pieces, Black is able to draw.

3...Kf8!

Again, this move is easy to find in view of 3...Kh8 4.Rd7, winning. Now the black king is out of the corner, but any white move would allow him back.

4.Rg3

Intending to take the white king off the h-file, and preventing the black king from returning to the h8-square. However, this double purpose fails against an accurate defence.

4...Bc2!

4...Bb1 would also draw, but only these two moves work; Black should avoid the trap 4...Be4? allowing the white king off the h-file: 5.Kg5!+– Kg8?! 6.Kf4+.

5.Rg6

Another attempt to trick Black, but there is no reason to capture the rook.

5...Bd3 6.Kh7

Threatening Kh8, winning; the rook cannot be captured, but...

6...Kf7!

The only move, and enough to draw.

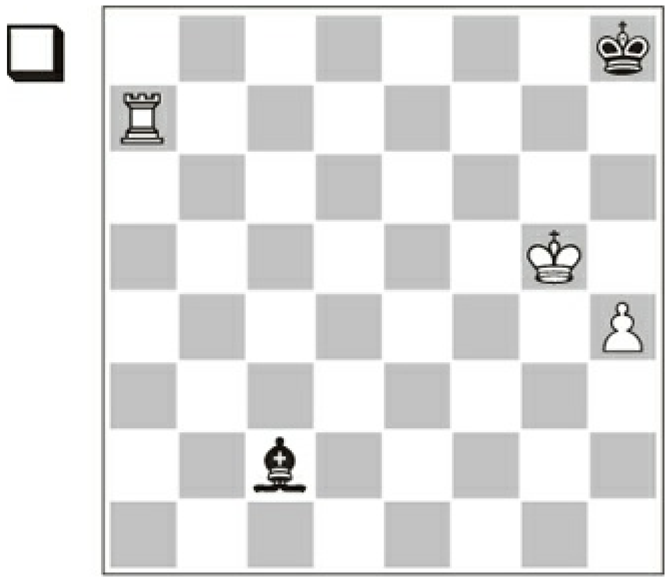
7.Kh6 Kf8 8.Rg1

8.Kg5 Bxg6=. Here Black can capture the rook.

8...Bc2 9.Kg5 Kg8=

White has already tried everything.

Pawn on the 4th rank



Position 13.24

When the pawn is on the 4th rank, or less advanced, the ending is won. The winning sequence is

too long to learn by heart but, if you have carefully studied the two previous endings, you will be able to find it over the board. I present here the analysis without comments.

1.Kh6 Kg8 2.Rg7+ Kf8 3.Rg3 Kf7 4.Kh5 Kf6 (4...Bb1 5.Rg5 Bc2 6.Kg4+–; 4...Kf8 5.Rg5 Bd1+ 6.Kg6 Kg8 7.Rc5+–) **5.Rg5 Bd1+** (5...Bf5 6.Kh6 Bd3 7.Rg3 Be4 8.Re3 Bd5 9.Re2 Kf7 10.Kh7+–) **6.Kh6 Kf7 7.Rg7+ Kf8** (7...Kf6 8.Rg1 Be2 9.Rg2 Bd1 10.Rf2++–) **8.Kg6 Bh5+ 9.Kf6+–**

ENDING 99 | Queen vs. Rook + Pawn

This struggle is one of the most frequent in the 'different material relations' section (1237 games in my database). Despite the material imbalance, drawing chances are quite high. In practice, of the 1237 games, 367 were drawn, which represents about 30%.

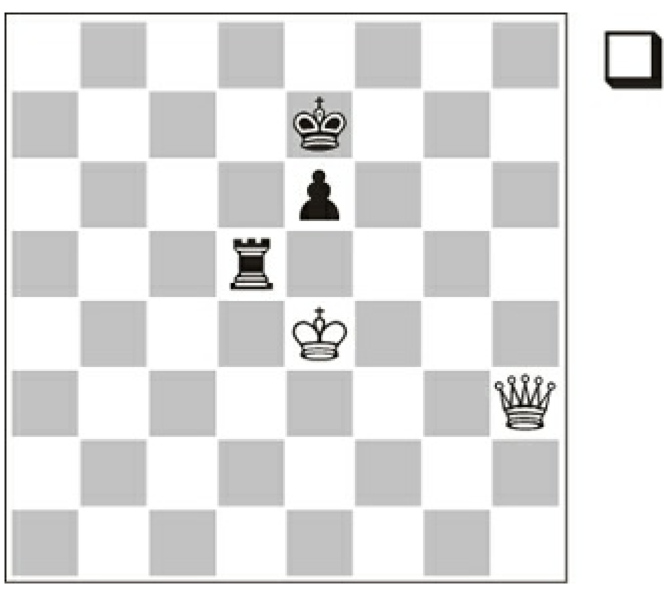
The theory is complex. Here we will only deal with a few important positions. Then, I will present a chart and some advice on handling the possible scenarios. You can find a detailed study on this ending in the excellent work *Fundamental Chess Endings*, by Müller & Lamprecht.

The defending side has drawing chances in these two cases:

1. When the rook defends and pushes the pawn from the rear; we will not study this case. The pawn must be at least on the 6th rank to draw.
2. Building a fortress; we will see how in the next two positions.

If the defender fails to coordinate his forces in one of these two ways, the ending is usually lost.

The winning manoeuvre



Position 13.25

In this first example, we are going to see the winning procedure from a normal position. Since the white king is cut off and all defending pieces are close, Black is able to put up resistance.

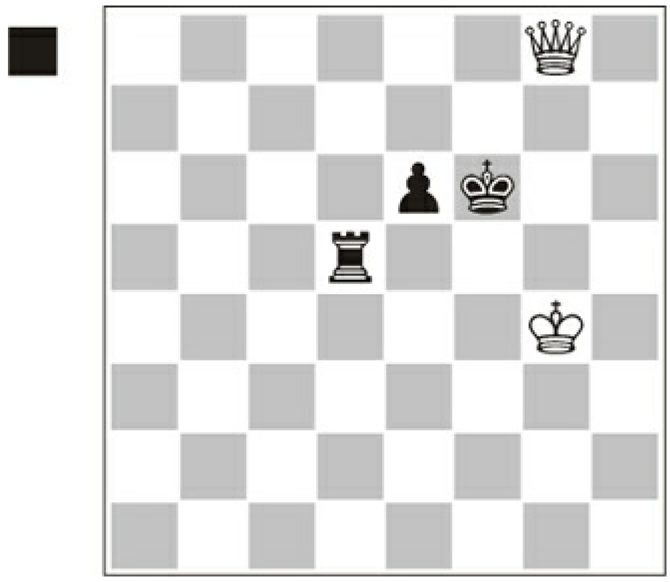
1.Kf4

The king moves so that later the rook cannot win time by delivering checks. The winning manoeuvre could also start with the queen-checking phase, and the resulting position would be the same after some moves, for instance: 1.Qh7+ Kf6 2.Qg8 Ke7 3.Qg7+ Kd6 4.Qf8+ Kd7 5.Qf7+ Kd6 6.Qe8 Re5+ 7.Kf4 Rf5+ 8.Kg4+–.

1...Rf5+ 2.Kg4 Rd5

Black has nothing better to do than wait.

3.Qh7+ Kf6 (3...Ke8 leads to exactly the same position on move 6: 4.Qg8+ Ke7 5.Qg7+ Ke8 6.Qf6+–) **4.Qg8!**



Position 13.26

The first important position. Queen checks have finished, but 5.Qf8+ is a threat. As we will see, for this manoeuvre the queen needs two ranks behind the pawn. Therefore, with the pawn on the 2nd rank the position is drawn. The queen needs two files next to the pawn as well, so with a knight's pawn the position is also drawn.

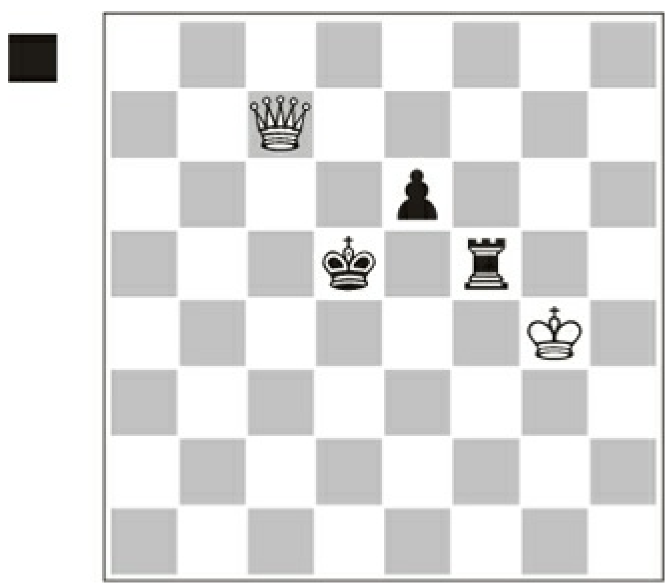
4...Ke7 5.Qg7+ Ke8 6.Qf6 Kd7 7.Qf7+ Kd6 8.Qe8!

Once again, a quiet move on the 8th rank, intending a check on the d8-square.

8...Rf5 9.Qd8+ Kc6 10.Qe7

Attacking the pawn and forcing the black king to hinder his own rook. 10.Kg3! wins faster thanks to zugzwang, but continuing the queen manoeuvre is more thematic.

10...Kd5 11.Qc7!



Position 13.27
(analysis diagram)

Zugzwang. Black's pieces have more and more coordination problems.

11...Ke4

11...Re5 12.Qd7+ Ke4 13.Qd6 leads to the same position as in the note to move 13, only faster.

12.Qd6!

The white queen exerts more pressure.

12...Re5

The position of the defending pieces is tragicomic and will collapse if White manages to transfer the move to Black.

13.Kg3 Kf5

The black king tries to reach the other side, in view of 13...Rg5+ 14.Kh4 Re5 15.Kg4!+– with total zugzwang.

14.Kf3 Rd5 15.Qf8+

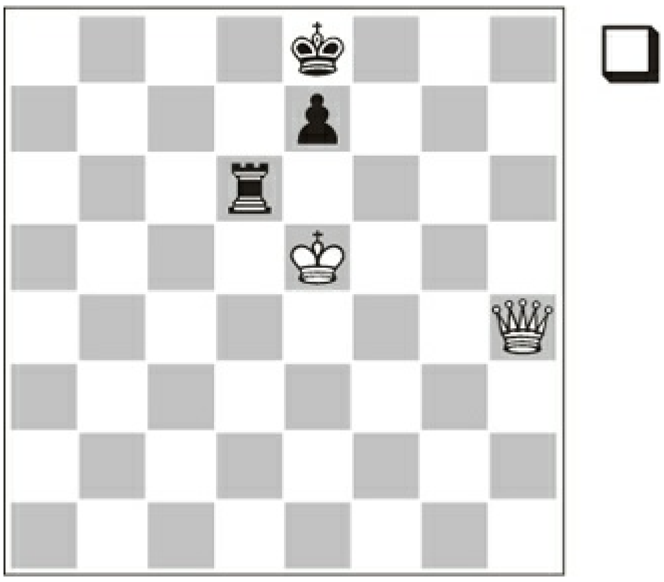
Finally White succeeds in driving the king away from the pawn, so the black infant will be captured in a few moves.

15...Kg6 (15...Ke5? 16.Qf4 mate) **16.Ke4 Rf5 17.Qe7 Rf6 18.Ke5+–** and the pawn dies.

The defensive set-up

As seen in the previous example, the queen needs two ranks behind the pawn in order to carry out the winning manoeuvre.

Here nothing can be done against the fortress set up by Black. The rook can move back and forth between the f6- and d6-squares and the king just has to escape from every check.



Position 13.28

1.Qh8+ Kd7 2.Qf8 Re6+ 3.Kd5 Rd6+ 4.Kc5 Rf6

There is nothing to do. White would win if his king could reach the 7th or 8th ranks, but only if he penetrates through the wing where the black king is. For instance: 4...Rd2?! 5.Kb6 Rd6+? (5...Rb2+! is still a draw) 6.Kb7, threatening 7.Qc8+ and provoking the collapse of the black set-up in a similar way as in the previous example. However, the white king on the g7-square would be harmless. 6...Rf6 7.Qc8+ Kd6 8.Qg4 Rf8 9.Qd4+ Ke6 10.Kc7 Rf6 11.Qc4+! Ke5 12.Kd7+–.

5.Qa8 Rd6 6.Qb7+ Kd8= – there is no way to make progress.

Summary: Queen vs. Rook + Pawn (from b- to g-file)

You do not need to know a lot of manoeuvres, because the result always depends on the ability of the defending army to coordinate and build a fortress, and on the success or failure in bringing the fortress down. Defensive manoeuvres are rather obvious. Attacking manoeuvres can be really complex, but they are always based on the same idea: breaking the coordination between the defending forces by means of zugzwang and a gradual queen penetration.

For this reason I consider that, although a study of each position is not necessary, it is quite useful to know in which positions the fortress succeeds and in which positions it fails. Leaving aside the rook's pawn, with which we will deal in the following ending, and considering defensive fortresses of the same type as Position 13.27 or 13.28:

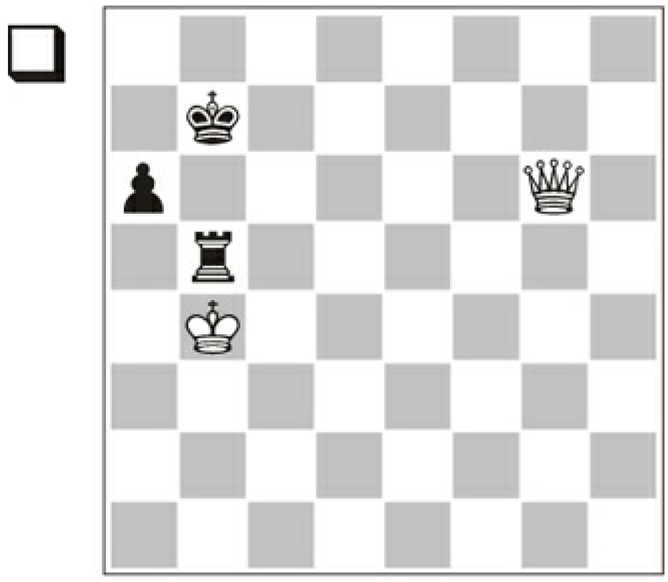
1. **With any pawn on the second rank, the ending is drawn. Exception: the attacking king has crossed the 6th rank and occupies the same wing as the defending king.**
2. **With a knight's pawn, no matter on which rank, the ending is always drawn. With a 3rd-rank pawn the defender should keep his king behind the pawn. The remaining cases are lost.**

ENDING 100	Queen vs. Rook + Rook's Pawn

Here the fortress with the 2nd-rank pawn does not work. This is logical, as there is just one protected point for the rook, and less room for the king.

So, you may assume that the ending with a rook's pawn is always lost. However, this is not so. There is one tough position with the pawn on the 3rd rank, but you need to know some details. This ending presents one of the highest percentages of mistakes in actual games, even among 2600+ players.

The diagram position represents one of the main dilemmas of this ending. Only a few players solve it correctly. What is the best spot for the king? The rook's or the bishop's file? Intuition speaks against imprisoning the king, but…



Position 13.29

1.Kc4?

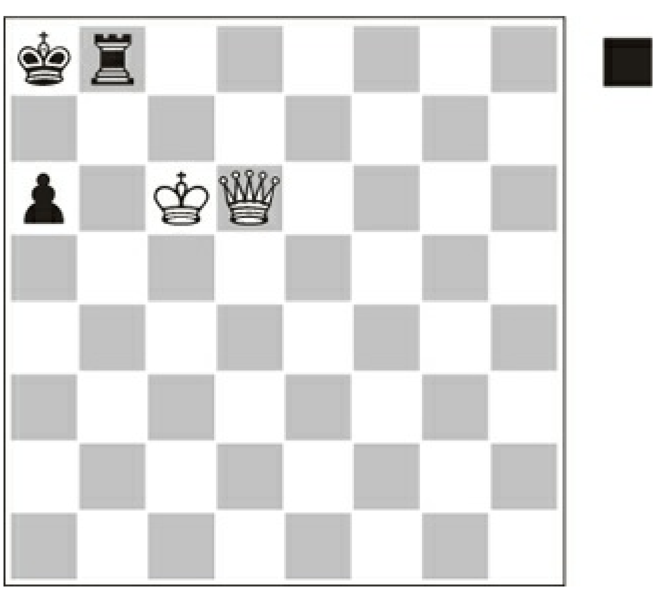
I choose the wrong move as the main line because it presents more subtleties. 1.Ka4! is an easy win, as Black cannot avoid zugzwang and then the white king reaches the a5-square. 1…Ka7 2.Qc6 Rb7 3.Qc5+ Ka8 4.Qd6 Ka7 5.Qd4+ Ka8 6.Ka5+–.

After 1.Kc4 the position is drawn, but most players lose.

1...Ka7 2.Qf7+ Rb7!

Almost everybody prefers to keep the rook on the b5-square as long as possible, which is sound, but the rook must move to b7 when the moment comes. My advice is: keep your rook on b7 unless you are forced to move it, as then the saving moves are easy.

Let us see the defensive moves which, apparently, are more natural: 2…Ka8 3.Qc7 Rb7 4.Qc6 Ka7 5.Qc5+ Ka8 6.Qd6 Ka7 7.Qd4+ Ka8 8.Kc5. The stronger side's king always manages to reach the 5th file thanks to zugzwang, but he is not really dangerous yet. The problems emerge when he reaches the back rank, especially the c8-square, and cannot be immediately ousted. 8…Rb5+ 9.Kc6 Rb8 10.Qd6 (if 10.Kc7, the king reaches the 8th rank but cannot stay there for long: 10…Rb7+ 11.Kc8 Rb8+=).



Position 13.30
(analysis diagram)

An important moment. When the queen controls b8, thus preventing a future rook check which

would drive the white king off the c8-square, Black cannot allow the white king's penetration. Therefore, he must transfer the rook to the key defensive square: 10...Rb7! (instead, 10...Ka7? 11.Kc7 Rb7+ 12.Kc8 Rb5 13.Qd7+ Ka8 14.Qc7+– and White wins; the same goes for 10...Rb5 11.Kc7 and the rest) 11.Qd8+ Ka7 12.Qd4+ Ka8= as in the main line.

3.Qf2+ Ka8 4.Qe3 Kb8 5.Kc5 Ka7 6.Kc6+ Ka8 7.Qe8+ Ka7

The black rook remains on the b7-square as long as possible and the king moves back and forth in the triangle a8-b8-a7.

8.Qe3+ Ka8 9.Qd4 Kb8 10.Qh8+ Ka7 11.Qd8

Finally White decides to force the enemy rook out of b7. Only the queen on the back rank can do this, but then White will not be able to keep his king within the winning zone. 11.Qc8 Rb5 12.Kd7 Rb7+ runs like the main line.

Now the black rook has to move. The most natural square is enough for an easy draw, though it is not the only move.

11...Rb5 12.Qc8 Rb6+ 13.Kc7 Rb5=

When the queen moves, the white king receives checks from b7 and b8 until he leaves the two back ranks. Otherwise, the king cannot reach the back rank.

Summary:

To build a fortress with a rook's pawn, the pawn must be on the 3rd rank.

If the stronger side's king occupies the rook's file, the ending is easily won.

If the stronger side's king is on the other side, he can reach the 6th rank. However, the defender must prevent him reaching the back rank and staying there; otherwise, the ending is lost.

In order to avoid the stronger side's king reaching the back rank, the rook must be transferred to the b7-square at the right moment.

14. Final Test

Exercise

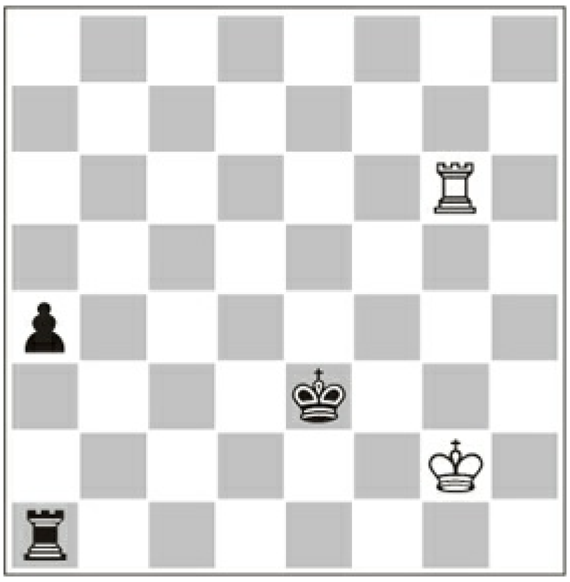


14.01 White to move.
What is the correct result?

Solution

14.01 White wins. 1.b7 Ne5 2.Kb8!!. That is the point. See **Ending 11**.

Exercise

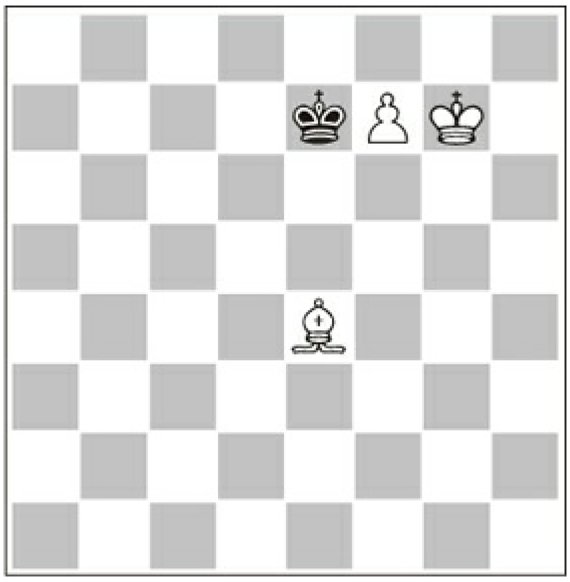


14.02 White to move.
What is the correct result?

Solution

14.02 Kamsky-Karpov, Linares 1994. 62.Rg4! a3 63.Rg3+ Ke4 64.Rb3 Ra2+ 65.Kg3 Kd4 66.Rf3 Ra1 67.Kg2 ½-½.

Exercise

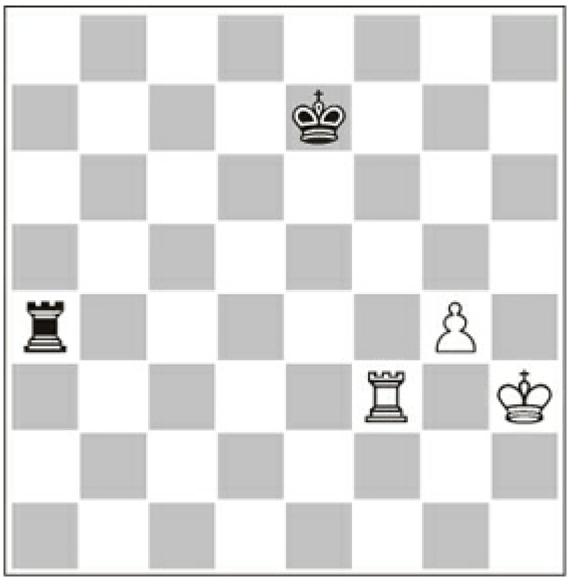


14.03 Find a square where a black knight can draw here, with White to move.

Solution

14.03 Only two squares are valid: e8 and h5. With a knight on e8, the game could continue: 1.Kg8 (1.Kg6 Nd6=) Nf6+ 2.Kg7 Ne8+.

Exercise

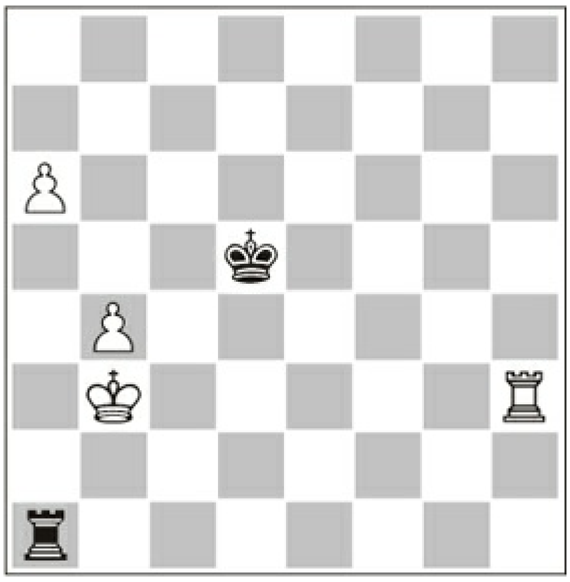


14.04 Black to move.
Can he draw?

Solution

14.04 Fischer-Sherwin, Portoroz 1958. 78...Ke6? (78...Ra8! 79.Kh4 (79.g5 Rf8=) 79...Rh8+! (79...Rf8? 80.Rxf8 Kxf8 81.Kh5!+–) 80.Kg5 Rg8+ 81.Kh4 Rh8+ 82.Kg3 Rf8!= 83.Rxf8 Kxf8 84.Kf4 Kg8!) 79.Kh4 Ra8 80.g5 Rh8+ 81.Kg4 Ke7 82.g6 Rf8 83.Rf5 Rh8 84.Kg5 Rh1 85.Rf2 Rh3 86.g7 Rg3+ 87.Kh6 Rh3+ 88.Kg6 Rg3+ 89.Kh7 Rh3+ 90.Kg8 1-0.

Exercise

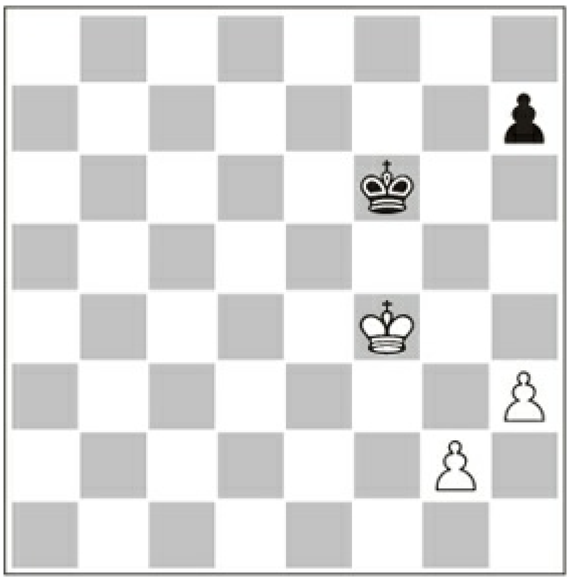


14.05 Black to move.
Can he draw?

Solution

14.05 Medina-De la Villa, Calella 1981. 43...Kc6! (43...Rxa6 44.Rh5+! Kd4 (44...Kc6 45.b5++–) 45.b5 Ra8 46.Kb4 Rb8 47.Rh6 Kd5 48.b6+–) 44.Rh5 Kb6 45.b5 Rb1+ 46.Kc2 Ra1 47.Rd5 Ra3 48.Kb2 Rg3 49.Kc2 Rh3 50.Rd8 Rh7! 51.Rd5 Rh3 52.Kd2 Ra3 53.Ke2 Rb3 54.Kf2 Ra3 55.Rf5 Rb3 56.Re5 Ra3 57.Re3 Ra2+ 58.Re2 Ra3 59.Rb2 Rh3 60.Re2 ½-½.

Exercise

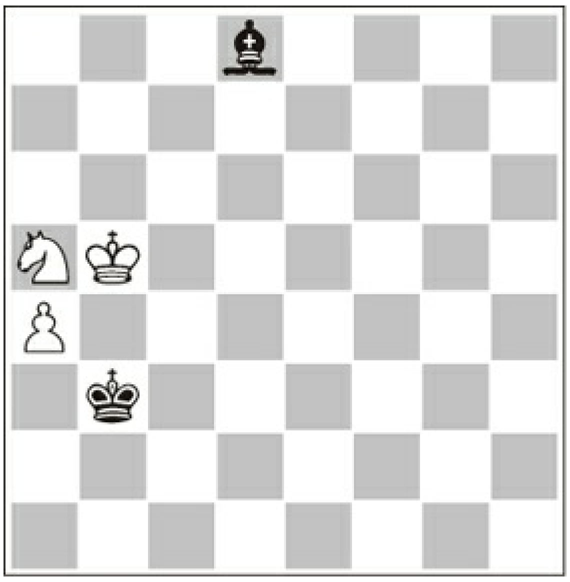


14.06 White to move.
What is the correct result?

Solution

14.06 Stefansson-Lutz, Manila (ol) 1992. 59.g4? (59.h4 Kg6 60.Kg4 Kf6 61.Kh5 Kg7 62.Kg5 Kg8 63.Kh6 Kh8 64.h5 Kg8. Now, if we apply Bird's Rule, the pawn must move to a different-coloured square: 65.g3!+–) 59...Kg6 60.h4 Kf6 61.g5+ Kg6 62.Kg4 h6 63.h5+ Kg7 64.g6 Kg8 ½-½.

Exercise



14.07 Black to move.
Can he draw?

Solution

14.07 Dutreeuw-Hovhanisian, Aalst 2005. 76...Kc3? (76...Ka3 77.Nb7 Bb6=; 76...Ka2 77.Nb7 Bc7 78.Nc5 Ka3!=) 77.Nb7 Bc7 78.Nc5 Bb8 (78...Kb2 79.Ne6!+–) 79.a5 Ba7 80.a6 Kd4 81.Nd7 Kd5 82.Nb6+ Kd6 (82...Ke6 83.Kc6+–) 83.Nc8+ 1-0.

Exercise



14.08 White to move.
Is the ending won or drawn?

Solution

14.08 Moreno-Viñal, Pamplona Open 2005. It is drawn. 73.Ka6 Be3?? (73...Be5=) 74.b7 Bf4 75.Ka7 1-0.

Exercise



14.09 White to move.
Can he draw?

Solution

14.09 Levitt 1997. Yes! 1.Ng6! (1.Nf3? Kg2 2.Ne1+ Kg3–+; 1.Nf5 Kg1!–+; 1.Kh7 Kg1! 2.Nf3+ Kg2 3.Nh4+ Kf2–+) 1…Kg1!? (1…h2 2.Nh4! Kg1 3.Nf3+=; 1…Kg2 2.Nf4+) 2.Ne5! Kg2 (2…h2 3.Nf3+) 3.Ng4!.

Exercise



14.10 White to move.
Can he win?

Solution

14.10 Kok 1935. Yes, 53.Kh4! Kb3 54.b5 Kxc3 55.b6 Kd2 56.b7 c3 57.b8Q c2 58.Qb4+ Ke2 59.Qe4+ Kd2 60.Qd4+ Kc1 61.Kg3 Kb1 62.Qb4+ Ka1 63.Qc3+ Kb1 64.Qb3+ Kc1 65.Kf2 h4 66.Ke2 h3 67.Kd3 1-0.

Exercise



14.11 White to move.
Can he win?

Solution

14.11 Yes, 1.Rh4, cutting the king off along a rank, but not 1.Rd7, as two files are not enough to win with a 3rd-rank knight’s pawn. If you have doubts, check Chapter 10: Cutting the King off along Files and Cutting the King off along Ranks.

Exercise

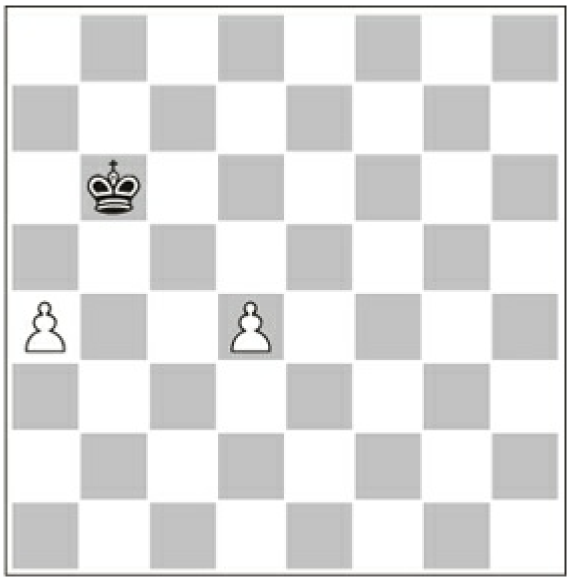


14.12 Black to move.
Can he draw?

Solution

14.12 Najdorf-Vinuesa, Mar del Plata 1941. Yes, 1…Kh3! (1…Kg3 2.b5+–; 1…f4 2.Ke2–+) 2.b5 (2.Ke3 Kg3!; 2.Ke2 Kg2!) 2…f4 3.Ke4 Kg3! 4.b6 f3 5.b7 f2 6.b8Q+ Kg2= ½-½.

Exercise

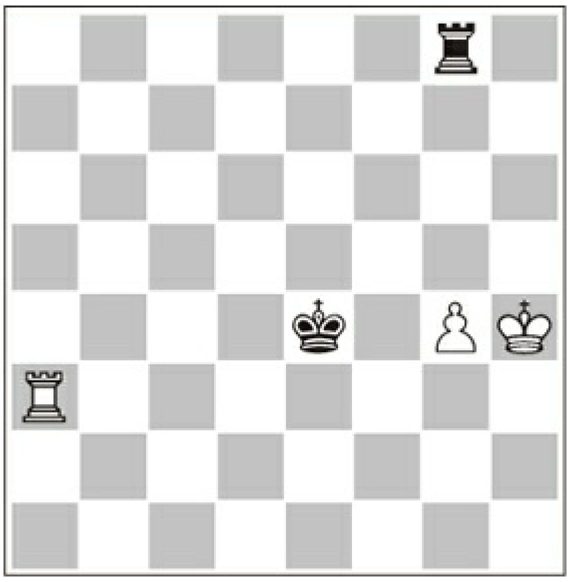


14.13 Is there any square on the board for the white king such that Black (to move) can draw?

Solution

14.13 Only the a1-square. 1…Ka5 2.Kb2! (2.d5 Kb6 3.Kb2 Kc5=) 2…Kxa4 3.Kc3 Kb5 4.Kd3 Kc6 5.Ke4 Kd6=.

Exercise



14.14 Black to move.
Larsen could not find a way to draw. Can you?

Solution

14.14 Taimanov-Larsen, Mallorca 1970. 63…Ke5?? (63…Rh8+ 64.Kg3 Ke5! 65.Ra6 Rh7!=; 63…Kf4! 64.Ra4+ Kf3!= – not 64…Ke5 65.Ra6+–) 64.Ra6! Kf4 (64…Rh8+ 65.Kg5 Rg8+ 66.Kh5 Rh8+ 67.Rh6 Rg8 68.g5 Kf5 69.Rf6+ Ke5 70.Rf2+–) 65.Rf6+ Ke5 66.g5 1-0.

Exercise



14.15 White to move.
Can he win?

Solution

14.15 Lerner-Dorfman, Tashkent 1980. Yes! 71.Rf2! (71.Kb7?. The king cannot reach its target: 71…Kf6! 72.Kc6 Ke5! 73.Kc5 g4 74.Kc4 g3 75.Rg2 Kf4 76.Kd3 Kf3=; 71.Ra2? (intending to cut the king off) 71…Kg6! (the only defence, avoiding the cut-off and standing in the white king's way: 71…Kf6? 72.Ra5!+–; 71…Kh6? 72.Kb7 and the king arrives on time, just count) 72.Kb7 Kf5 73.Kc6 g4 74.Kd5 Kf4 75.Kd4 g3! (75…Kf3? 76.Ra3+ (winning time) 76…Kf2 77.Ke4 g3 78.Rf3+!) 76.Kd3 Kf3=) 71…Kh6 72.Kb7 g4 73.Kc6 Kg5 74.Kd5 g3 75.Rf8 Kg4 76.Ke4 1-0.

Exercise



14.16 Is this ending drawn?

Solution

14.16 Yes, but White must avoid being pushed from the rear, the winning procedure against a rook's pawn. 1.Kg4! (1.Kg6 Kf4 2.h6 Ra6+ 3.Kg7 Kg5 4.h7 Ra7+ 5.Kg8 Kg6 6.h8N+ Kf6–+) 1...Ke4 2.h6 Ra1 3.Kg5 Ke5 4.Kg6 Ke6 5.Kg7!=.

Exercise



14.17 Black to move.

According to *ChessBase Magazine* notes, this position is a dead draw, but with Black being an exchange and a pawn up that is difficult to believe, isn't it?

Solution

14.17 Miladinovic-Beliavsky, Ohrid 2001. 99…gxf3? (99…Rxf3+! 100.Kg2 Rd3 101.Bc7 Kg5 with the idea Kh4 and Rd2: 102.Be5 Rd5 103.Bc7 (103.Bg3 Rd2+; 103.Bh2 Rd2+ 104.Kg3 Ra2 105.Bg1 Ra3+ 106.Kg2 Kf4) 103…Rd2+ 104.Kg3 Rd3+ 105.Kg2 Kh4!–+ and the black king is driven from his blockade position) 100.Bc5 Ke4 101.Kf2. Now the ending is a real dead draw. See **Ending 97**. Black kept on trying for 30 moves; ½-½.

Exercise

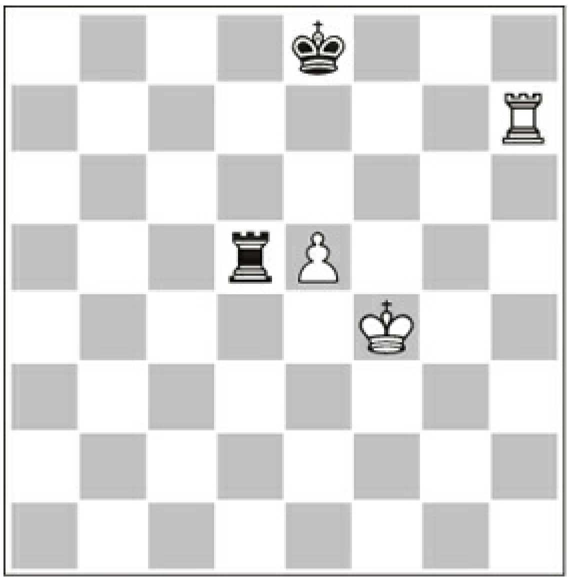


14.18 Black to move.
Can he draw?

Solution

14.18 Yes! 1…Kc5!! is the only move that secures the draw. Preventing the cut along the 3rd rank (which would occur after the pawn's advance) is not enough. The white king must be hindered as well, as analysis proves: (1…a5?? loses on the spot due to 2.Rh5!; 1…Kb5? (allowing the white king to arrive) 2.Kf7 a5 3.Ke6 a4 4.Kd5!. Done! The white king shoulders his black counterpart before the pawn reaches the 6th rank. Therefore, White wins: 4…Kb4 (4…a3 5.Rb8++– Ka4 6.Kc4) 5.Kd4!. Again. 5…Kb3 (5…a3 6.Rb8++–) 6.Kd3. And again. 6…Kb2 (6…a3, reaching the important Position 10 on White's turn! 7.Rb8+–+) 7.Rb8+ Ka2 8.Kc2+–) 2.Kf7 a5! 3.Ke6 a4! (the pawn advances as the king holds) 4.Ke5 a3 5.Ke4 (5.Ra8 is another attempt. 5…Kb4 6.Kd4 Kb3! 7.Kd3 (see **Ending 28**) 7…Kb2! (7…a2 8.Rb8+ Ka3 9.Kc2! a1N+ 10.Kc3+–) 8.Kd2 a2 9.Rb8+ Ka1!=) 5…Kc4 (5…a2?? 6.Ra8) 6.Rc8+ Kb3 7.Kd3 (see **Ending 28**) 7…Kb2! (7…a2 8.Rb8+ Ka3 9.Kc2 +–) 8.Rb8+ Kc1! 9.Kc3 a2 10.Ra8 Kb1 11.Rb8+ Kc1!= (11…Ka1?? 12.Re8+–).

Exercise



14.19 White to move.
What is the result?

Solution

14.19 1.Kf5! and Black is unable to use any of the defensive procedures: neither Philidor, nor K&H. Therefore, we will reach the Lucena Position: 1...Rd1 (1...Ra5 2.Kf6+–) 2.Ke6 Kf8 3.Rf7+! Kg8 (3...Ke8 4.Ra7!. White takes the file the black rook would need for efficient distant checks. 4...Kf8 5.Ra8++–) 4.Rd7 Ra1 5.Ke7 Kg7 (5...Ra8 6.Rd8+!, not 6.Ra7? Re1!) 6.Ke8+! (6.e6 Ra8=) 6...Kg6 7.Rd6+! (7.e6 Kf6=) 7...Kg7 8.e6 Ra8+ 9.Rd8 Ra6 10.e7 Ra7 11.Rc8+–.

Exercise

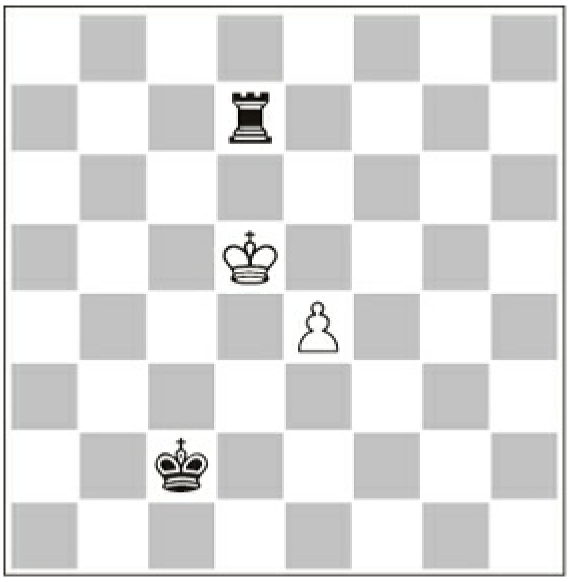


14.20 White to move.
Can he draw?

Solution

14.20 Yes, but only with accurate play: 1.Kf2! Kd2 (1…c5 2.Ke3 Kc2 3.Ke2! Kc3 4.Kd1 Kxc4 5.Kc2=) 2.c5 Kd3 3.Ke1 Kc4 4.Kd2 Kxc5 5.Kc3=.

Exercise



14.21 What is the result after 1.Kc6, 1.Kc4 or 1.Ke6 ?

Solution

14.21 Volke-Kovalev, Minsk 1994. The game went 1.Ke6?, which is interesting for us, as this analysis involves a complete revision of the recurrent ideas in Rook vs. Pawn endings. (1.Kc4 and 1.Kc6 draw. 1.Ke6 loses. 1.Kc4! Re7 (1...Kd2 2.e5 Ke3 3.Kc5! Ke4 4.e6 Ra7 5.Kd6=) 2.Kd5 Kd3 3.e5=; 1.Kc6 Re7 2.Kd5 Kd3 3.e5=) 1...Rd4!. The rook moves to the rear of the pawn and chooses a square where later the black king will not obstruct it (1...Rd1? 2.e5 Kc3 (2...Kd3 3.Kd5!. Shouldering! 3...Ke3+ 4.Kc6! Kf4 and once the kings occupy both sides of the pawn, counting favours White: 3 tempi for him, 4 for Black. 5.e6 Re1 6.Kd7 Kf5 7.e7=) 3.Kf7 Rf1+ 4.Ke7 (4.Kg7? Re1 5.Kf6 Kd4–+) 4...Kd4 5.Kd6!. Shouldering again. As we know, shouldering from the rear leads to underpromotion to a knight and a draw. 5...Ra1 6.e6 Ra6+ 7.Kd7 Kd5 8.e7 Ra7+ 9.Kd8 Kd6 10.e8N+=) 2.e5 Kd3 3.Kf7 Rf4+ 4.Ke7 Ke4 5.e6 (5.Kd6 Kf5) 5...Ke5 6.Kd7 Rd4+ 0-1.

Exercise

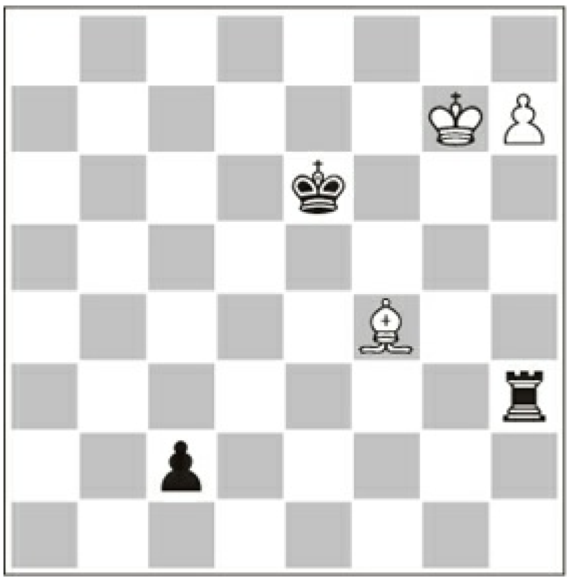


14.22 Black to move.
Can he win?

Solution

14.22 54...Ke4! 55.Kh6 Kf4 56.g5 Bg6! 57.h5 Kf5–+.

Exercise



14.23 Black to move.
Can he win?

Solution

14.23 Berkvens-Van Beek, Dieren 2000. Yes, 55...Rg3+!! 56.Kh6 (56.Bxg3 c1Q 57.h8Q Qg5+ 58.Kh7 Kf7–+; 56.Kh8 Kf7–+; 56.Kf8 Rf3!–+) 56...Kf7! 57.Bc1 (57.h8N+ Kf6 58.Kh7 Rg7+ 59.Kh6 Rg4–+) 57...Rh3+ 0-1.

Exercise

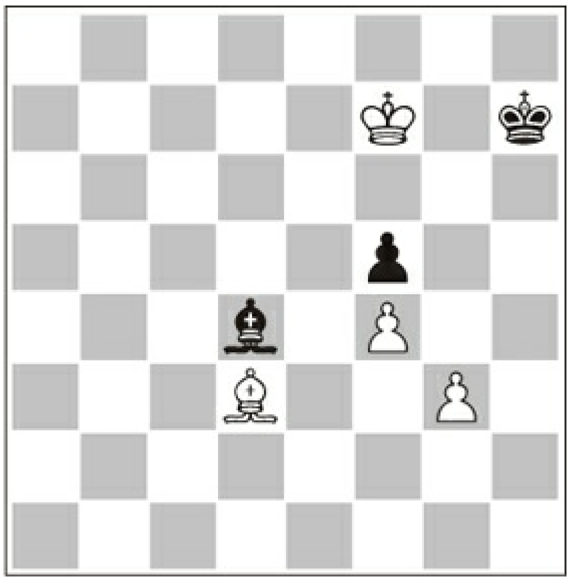


14.24 Black to move.
Can he draw?

Solution

14.24 Domínguez-Bruzon, Havana 2005. 89...Kb6? (yes, 89...Be4! 90.Ne7 Kb7= the black king captures the a7 pawn and the bishop is able to stop the f-pawn, because both control diagonals are more than 4 squares long) 90.f5. Now one of the diagonals is 4 squares long and Black is lost in any case, but anyway, the bishop cannot stop the pawn anymore. 90... Kxa7?! 91.Ne7! 1-0.

Exercise



14.25 White to move.
Can he win?

Solution

14.25 Negulescu-Szuhanek, Bucharest 1998. Yes, due to the unfortunate position of the black king. 77.g4!! (77.Bxf5+? would allow Black to reach known defensive set-ups. 77...Kh6 78.g4 (78.Bc2 Be3 79.Kf6 Bd2 80.Kf5 Kg7=) 78...Bf6!= 79.Bc2 Bd8 80.Ke6 Kg7=) 77...Kh8?! (77...Kh6 is more stubborn: 78.g5+ Kh5 79.Bxf5 Kh4 80.Be6! Kh5 81.g6 Kh6 82.f5+–) 78.g5 Be3 79.g6 Bd4 80.Bxf5 Be5 81.Bd3 Bd4 82.f5 Be5 83.f6+–.

Exercise

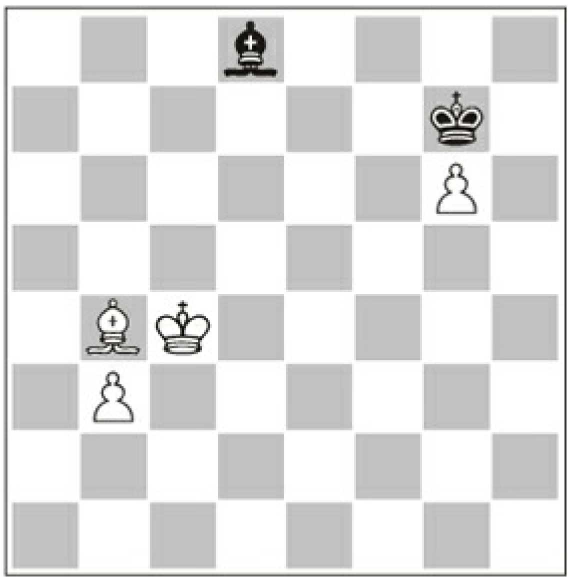


14.26 Find mistakes in the following moves: 90…Kh7 91.Qe4+ Kh8 92.Qc4 Kh7 93.Qf7+ Kh8 94.Qd7 Rg5 95.Qb7 Rg8 96.Qb3 Kh7 97.Kf7 Rg5 98.Qe6 Rg7+ 99.Kf8 Rg5 100.Qf6 Rg8+ 101.Kf7 Rg5 102.Qd4 Rf5+ 103.Ke6 Rg5 104.Kf6 Rg8 105.Qd7++–.

Solution

14.26 Kramnik-Polgar, Monaco 1994. 90…Kh7?? (90…Rg7!) 91.Qe4+?? (91.Kf7 Rg7+ 92.Kf8+–) 91…Kh8 92.Qc4 Kh7?? (92…Rg7=) 93.Qf7+?? (93.Kf7+–) 93…Kh8 94.Qd7 Rg5 95.Qb7 Rg8 96.Qb3 Kh7?? (96…Rg7=) 97.Kf7 Rg5 98.Qe6 Rg7+ 99.Kf8 Rg5 100.Qf6 Rg8+ 101.Kf7 Rg5 102.Qd4 Rf5+ 103.Ke6 Rg5 104.Kf6?? (104.Kf7 Rf5+ 105.Ke7 Rg5 106.Qe4+ Kh8 107.Qe6+–) 104…Rg8?? (104…Rg7=) 105.Qd7+?? (105.Ke7 or 105.Kf7+–) and 1-0. For explanations, see **Ending 100.**

Exercise

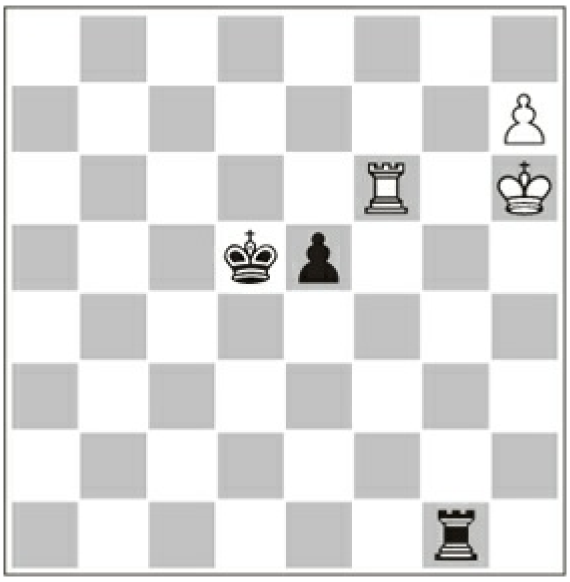


14.27 Everybody knows that, in this game, Janowsky resigned in a drawn position, but it is not so well-known that Capablanca had a forced win. What would you play in this position in which Capablanca made a mistake?

Solution

14.27 Capablanca-Janowsky, New York 1916. 81.Bc3+? (81.Be1!. In principle, it is difficult to find the difference between this and the game move, but here the bishop prevents the black king from winning time: 81...Kxg6 (81...Be7 82.Bf2 Kxg6 83.Bc5+–) 82.b4 Kf5 83.Kd5 Kf4 84.b5 Ke3 85.Kc6 Kd3 86.Kb7! Kc4 87.Ka6 Kb3 88.Ba5+–; 81.Bd2! also wins, as it blocks the black king's route to the rear of the pawn. 81...Kxg6 82.b4+– Kf5 83.Kd5 Kg4 84.b5 Kf3 85.Kc6 Ke4 86.Be1 Kd3 87.Kb7! Kc4 88.Ka6) 81...Kxg6 82.b4 Kf5 83.Kd5. Here Janowsky resigned. 83...Kf4 84.Bd4 (84.b5 Ke3 85.Kc6 Kd3! winning a necessary tempo to reach the c4-square: 86.Be5 Kc4=) 84...Kf3! 85.b5 Ke2!=.

Exercise

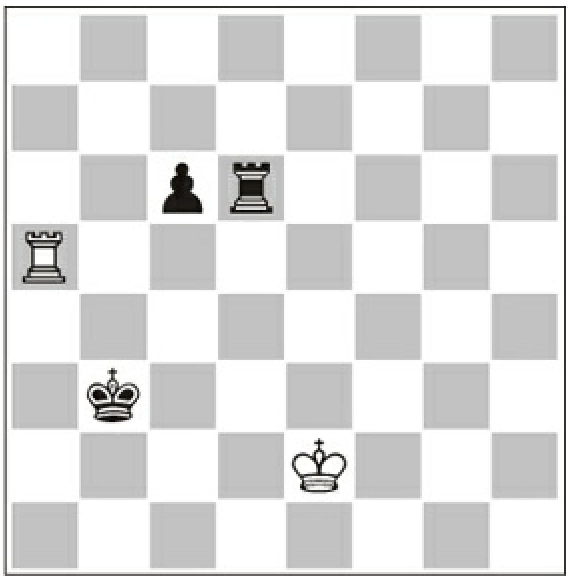


14.28 Black is going to lose his rook. Can he (to move) draw after all?

Solution

14.28 Kamsky-Bacrot, Sofia 2006. Yes, though a difficult defence is exhausting: 63...Ke4!! (63...e4 64.Rf5++–; 63...Kd4 64.Rf5+–; 63...Rh1+ 64.Kg7 Rxh7+ 65.Kxh7. Kings on both sides of the pawn. If we just count, the result is 6-6, so Black loses, and that is what happens here. 65... e4 66.Kg6 Kd4 (66...Ke5 67.Rf8 e3 68.Kg5 Ke4 69.Kg4 e2 70.Re8+ Kd3 71.Kf3+–)) 64.Rf8 Rh1+! 65.Kg6 Rxh7! (the white king must be as far as possible: 65...Kd3? 66.Rd8+! Kc3 (66...Ke3 67.h8Q Rxh8 68.Rxh8 e4 69.Kf5+–) 67.h8Q Rxh8 68.Rxh8 e4 69.Re8 Kd3 70.Kf5 e3 71.Kf4 e2 72.Kf3+–) 66.Kxh7 Kd3! 67.Rd8+ Ke3! (67...Kc3 68.Re8 Kd4 69.Kg6+–) 68.Kg6 e4 69.Kf5 Kf3! 70.Rh8 e3 71.Rh3+ Kf2 72.Kf4 e2 73.Rh2+ Kf1 74.Kf3 e1N+=. The game should be drawn, but the rest appears in the appendix to **Ending 9**. 75.Kg3 Nd3 76.Rd2 Ne1 77.Rf2+ Kg1 78.Rf8 Ng2 79.Kf3 Kf1 80.Kg3+ Kg1 81.Kf3 Kf1 82.Rf7 Ne1+ 83.Ke3+ Kg1 84.Ke2 Ng2 85.Rh7 Nf4+ 86.Kf3 Nd3 87.Rh4 Ne5+ 88.Ke2 Kg2 89.Re4 Nf7 90.Re7 Nd6 91.Rg7+ Kh3 92.Kf3 Kh4 93.Kf4 Kh5 94.Re7 Nc4 95.Re6 Nd2 96.Rc6 Nb3 97.Ke3 Kg4 98.Rc4+ Kg3 99.Rc3 Na5 100.Ke4+ Kf2 101.Kd5 Nb7 102.Rb3 Nd8 103.Rb8 1-0.

Exercise



14.29 White to move.
Can he draw?

Solution

14.29 Arencibia-Vladimirov, Leon 1991. Yes, but only one move works: 69.Rc5? (69.Ra6? Kc3!Z 70.Rb6 (70.Ke1 Kb4–+ 71.Ke2 Kb5 72.Ra1 c5–+; 70.Ke3 Re6+–+) 70...Rd2+ 71.Ke1 c5 72.Rc6 Rd5–+; 69.Ke3! (transferring the king to a drawing square before using frontal checks for defence) 69...Kb4 70.Ra1 c5 71.Rb1+ Ka3 72.Rc1 Rd5 73.Ke4=) 69...Kb4–+ 70.Rc1 c5 (the pawn is on the 4th rank and the white king is cut off along one file, therefore he must be on e3 or e4 to draw) 71.Rb1+ Ka3 72.Rc1 Rd5 (72...Rd5 73.Ke3 Kb2–+) 0-1.

Exercise

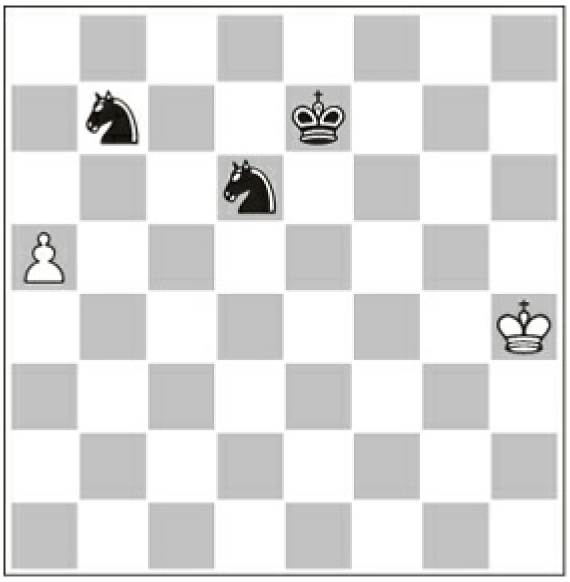


14.30 Black to move.
Can he draw?

Solution

14.30 Urbanec-Hora, Prague 1964. Yes! The c5-pawn is lost and the black king will make it to the rear of the pawn, but the bishop must play accurately. 89...Bb3? (here the bishop will not be able to reach the c8-h3 diagonal. 89...Ba4! 90.Bf3+ Kxc5 91.g4 (91.Ke5 Bd7! 92.Be4 Bg4! 93.Kf4 Bd7 94.Bf5 Be8 95.g4 Kd4 96.g5 Bh5 97.Bb1 Be8 98.Kf5 Ke3! 99.Kf6 Kf4!=) 91...Kd4 92.g5 Bc2 93.Bg4 Bg6 94.Bf5 Be8 95.Bc2 Bf7 96.Kf5 Ke3 97.Kf6 Kf4=) 90.Bf3+ Kxc5 91.Ke5!+– Bf7 92.g4 Bg6 (92...Kc4 93.g5 Kd3 94.Kf6 Be8 95.Bd5+– and Bf7) 93.Bd5 Bc2 94.Bf7 Kc6 95.Be8+ Kc7 96.Kf6 Kd6 97.g5 Bd3 98.Bg6 Bc4 99.Bc2 Kd7 100.g6 Ke8 101.g7 Bg8 102.Bg6+ Kd7 103.Bf7 Bh7 104.Bb3 1-0.

Exercise

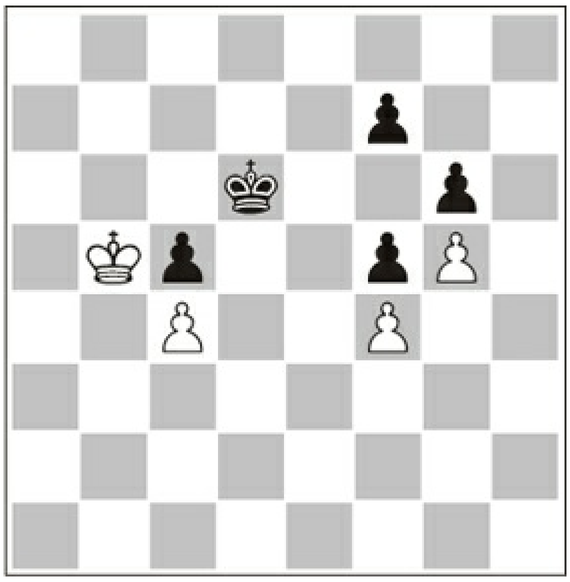


14.31 White to move.
What is the correct result?

Solution

14.31 The correct result is a draw. Black's pieces are awkwardly placed and unable to stop the white pawn, but the queen cannot win against two knights either. 3.a6 Nc5 4.a7 Ne6 5.a8Q Black sets up a famous fortress (see appendix).

Exercise

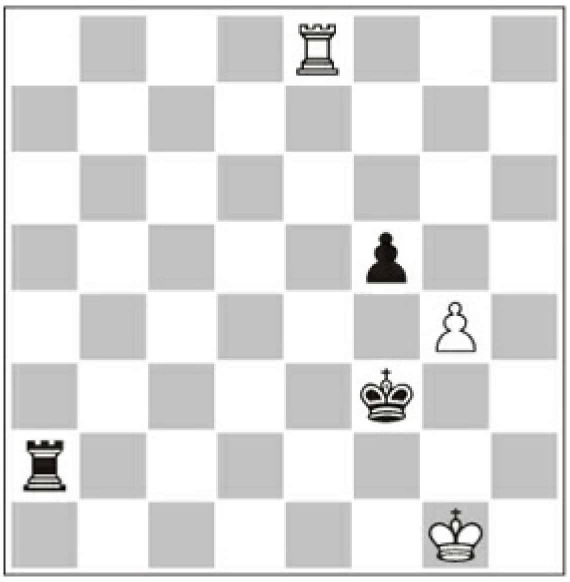


14.32 Black to move.
What is the correct result?

Solution

14.32 Andrés-De la Villa, Mondariz 2000. The correct result is a draw. 50...f6! (a good move, but not the only one, it seems. 50...Ke7 also draws) 51.gxf6 g5 52.f7! (the game continued 52.fxg5 f4 53.f7 Ke7 54.g6 f3–+) 52...Ke7 53.Kxc5 g4 54.Kd4 Kxf7 and the ending is drawn because the white king can defend his c4 pawn without leaving the square. See **Ending 89**.

Exercise

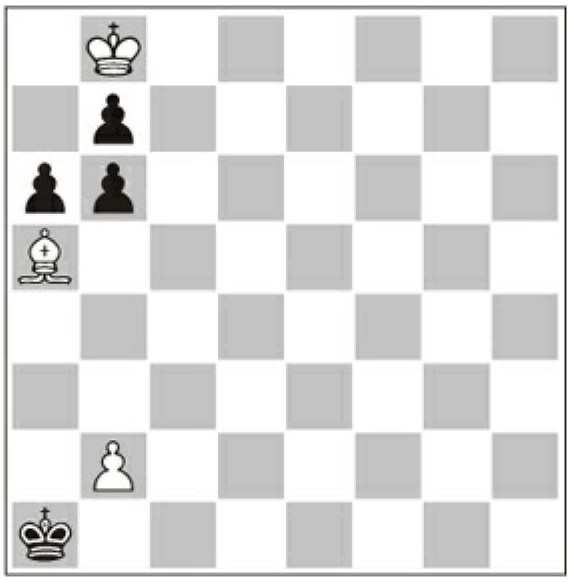


14.33 Black to move.
Can he win?

Solution

14.33 Yes, but he should not capture the white pawn. 1…f4! (neither 1…Kxg4 2.Re3, adopting the **Philidor Defence**, nor 1…fxg4 2.Re1!, adopting **the First-rank Defence**, win) 2.g5 (2.Rb8 Kg3! and the king hides behind the white pawn, winning easily) 2…Kg3 3.Kf1 f3 4.g6 Rh2 5.Ke1 f2+ 6.Ke2 Kg2 7.Rf8 Kg1 8.Ke3 Rg2!, avoiding the last trap and winning.

Exercise

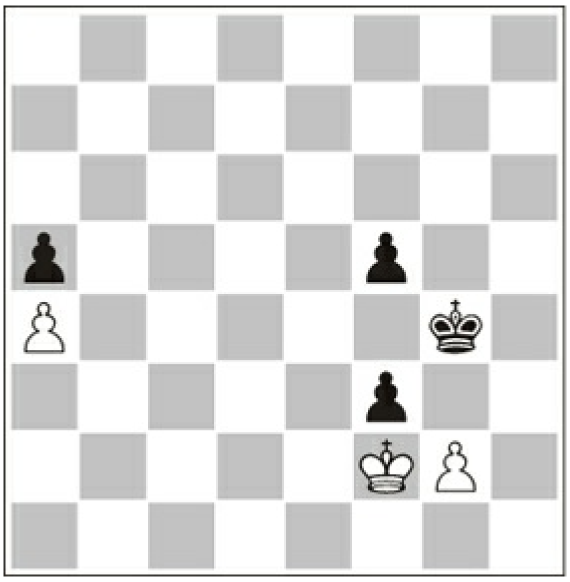


14.34 White to move.
Can he win?

Solution

14.34 Yes! 1.b4! (not 1.Bc3 a5! 2.Kxb7 Ka2 3.Kxb6 a4 4.Kb5 Kb3 followed by …a4-a3 exchanging White's last pawn) 1…bxa5 2.bxa5 b5! 3.axb6 a5 4.b7 a4 5.Kc7 a3 6.b8Q= (or 6.Kc6!, waiting to promote with check) 6…a2 7.Kb6! (gaining two tempi on the way towards the pawn) 7…Kb2 8.Kc5+ and the white king has entered the winning zone. **Ending 17**.

Exercise

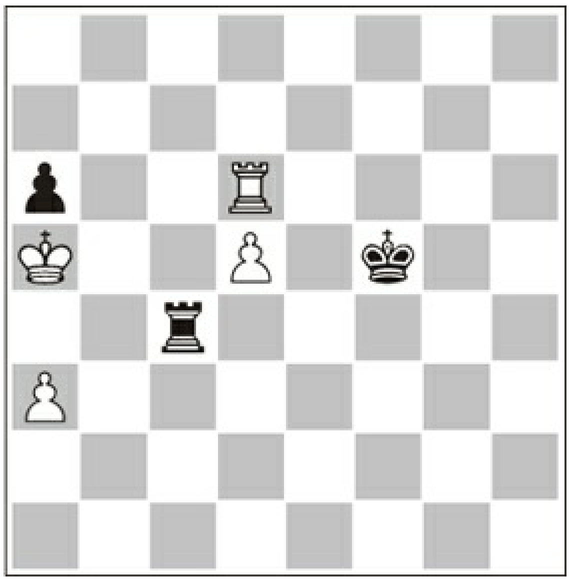


14.35 White to move.
Choose: 1.gxf3+ or 1.g3 ?

Solution

14.35 Winants-Hansen, Wijk aan Zee, 1994. White could have drawn by choosing the right move. 1.gxf3+? (1.g3! f4 2.gxf4 Kxf4 with a draw, according to Bahr's Rule. **Ending 83**) 1…Kh3! 2.f4 (2.Ke2 f4 3.Kf2 Kh2 4.Ke2 Kg3 and the f-pawn promotes) 2…Kg4 3.Ke3 Kg3 and now White's f-pawn is lost and Bähr's Rule states that Black wins.

Exercise

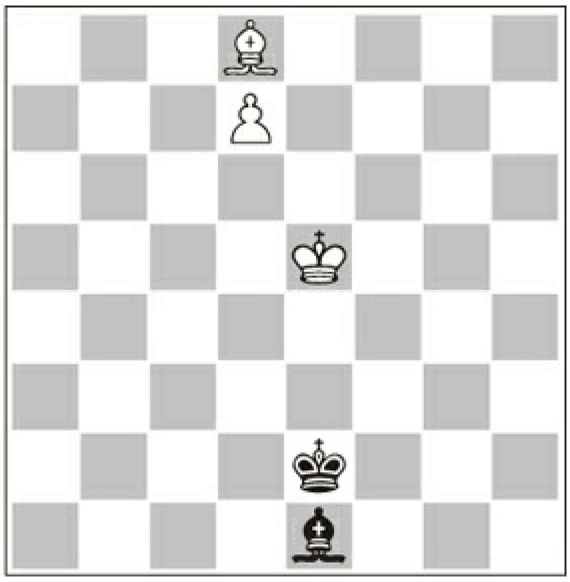


14.36 White to move.
Can he win?

Solution

14.36 Landenbergue-Salgado, Elgoibar, 2006. All rook endings are drawn… because we play them badly. 64.Rxa6? (White could win with a move by no means easy to find: 64.Re6! Rd4 65.Kxa6 Rxd5 66.Re1+–, cutting the king off along the f-file. This position will lead to **Ending 67**; 64.Rh6 should win as well) 64…Ke5! 65.d6 Ke6 66.Kb5 Rc1 67.a4 Kd7 68.Rb6 Rb1+? (68… Rd1! 69.Ka6 Rd5 70.a5 Kc8!= and in this funny position, despite White being two pawns up, he cannot make progress due to the passivity of his pieces) 69.Ka6 Ra1 70.a5 Ra2 71.Rb1 Kxd6 72.Kb6 Kd7 73.a6 Kc8 74.Ka7? Kc7 75.Rc1+ Kd7 76.Rc5 Kd6 77.Rh5 Kc7 78.Rh6 Ra1 79.Rh7+ Kc6 ½-½.

Exercise

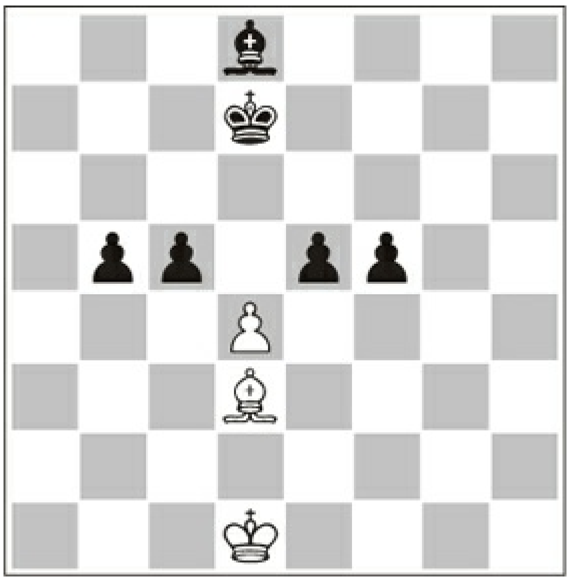


14.37 Halberstadt, 1939.
White to move.
Can he win?

Solution

14.37 1.Ke4! (an amazing case of outflanking. 1.Ke6 Kd3 2.Kf7 Ke4 3.Ke8 Kd5 4.Ba5 Bh4 5.Bb4 Ke6=; 1.Kd4 Kf3=; 1.Kd6 Kd3 2.Kc7 Kc4 3.Kc8 Kd5 4.Bg5 Ba5 5.Bf4 Kc6=) 1...Bg3 (1...Bc3 2.Kf5 Be1 3.Kg5 Bd2+ 4.Kg6 Be1 5.Kf7 Kf3 6.Ke8 Ke4 7.Bc7 Bh4 8.Bd6+–) 2.Kd5! Kd3 3.Kc6 Be1 4.Kb5! (another amazing step back, preventing ...Ba5. 4.Kb7? Kc4 5.Kc8 Kd5=) 4...Bg3 5.Kb6 (preventing ...Bc7) 5...Bf2+ 6.Kb7 Be1 7.Kc8 Kc4 8.Be7 Ba5 9.Bd6 Kd5 10.Bc7+–.

Exercise



14.38 After a study by Riihimaa, 1942. This exercise is worth four. White will eat two black pawns on his next two moves, but he has four ways to do it. Which one of them leads to a draw?

Solution

14.38 Version of a study by Riihimaa, 1942. In the original study the king was on d2 when White has two options.

Option 1: 1.Bxb5+? Ke6 2.dxe5 Kxe5 (Black wins because the f-pawn will advance to f2 and then Black breaks the defensive zone by bringing his king to g1);

Option 2: 1.Bxb5+? Ke6 2.dxc5 e4! (to build up the right defensive position, with the bishop on g2 and the king on e2, White needs three moves and Black can always get in …f4-f3 first) 3.Bf1 (3.Be2 f4 4.Bg4+ (4.Bh5 f3) 4…Kd5 5.Ke2 Kxc5 6.Bh3 (trying to reach g2) 6…f3+! 7.Ke3 Kd5 8.Bg4 Bb6+–+) 3…f4! 4.Ke2 (trying to get the bishop to g2) 4…f3+! 5.Ke3 Ke5 6.Ba6 Be7 7.c6 Bc5+ 8.Kd2 Bb6–+. White cannot give up his bishop for the pawns;

Option 3: 1.Bxf5+! Kc6! (1…Kd6 2.dxe5+ Kxe5 3.Bd7 is a draw) 2.dxe5? (White is lost because he fails to reach the correct defensive position against these two pawns: bishop on the diagonal f1-d3 and king on b3) 2…c4!–+ 3.Kc2 (3.Bh3 Kc5–+) 3…Kc5 4.Be4 Bc7 5.e6 Bd6 6.Kb2 Be7 7.Bb1 Bf6+ 8.Kc2 b4 9.Ba2 Kb5–+;

Option 4: 1.Bxf5+! Kc6! 2.dxc5! (only like this. The presence of the black knight's pawn allows the defence. See **Ending 47**) 2…Kxc5 3.Kd2 Kb4 (Pushing the e-pawn with 3…Kd4 4.Bg6 e4 5.Bf5 b4 6.Bg6 e3+ 7.Ke2 would bring about Position 9.12 – **Ending 47**) 4.Bg6 Ka3 5.Kc2 b4 6.Be4 b3+ 7.Kd2 Ba5+ 8.Kd1 Ka2 9.Bd5! Ka3 10.Be4! b2 11.Bb1=.

Exercise

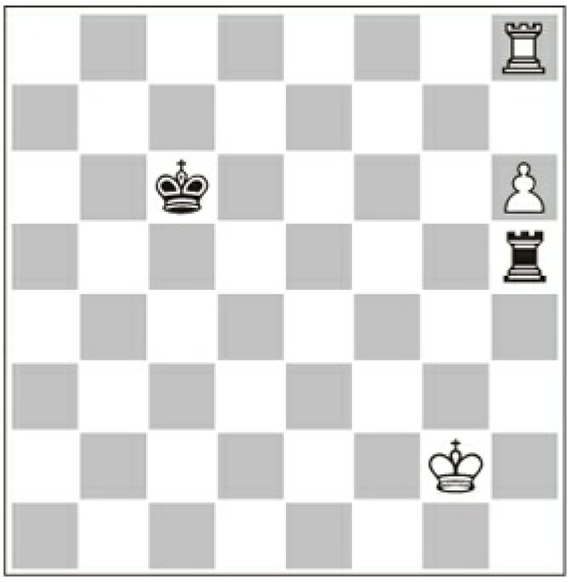


14.39 Can White force a theoretically winning ending?

Solution

14.39 Yes, he can: 72.Ne6+! Kc8 73.Nd4 Rf8 74.Nxf3 Rxf3 75.Kb6! (preventing the first-rank defence – **Ending 55**) 75...Rb3 (75...Rf8 76.Ka7! Rf7+ 77.Ka8 Rf1 78.Rc6+ Kd7 79.Kb7 and the Lucena Position (**Ending 53**) is unavoidable) 76.Rg8+ Kd7 77.Rb8 1-0, Anand-Gelfand, Moscow 2012.

Exercise



14.40 White to move.
Can he win?

Solution

14.40 61.Rh7? (a terrible mistake, allowing the black king to approach the pawn. With 61.Kg3! Black is prevented from achieving the Vancura Position, so White wins trivially: 61…Kb7 62.Kg4 Rh1 63.Kf5+–, bringing the king to the g6-square and releasing the rook) 61…Kd6! 62.Kg3 Ke6 63.Kg4 Rh1 ½-½ (Gelfand-Anand, Moscow 2012).

The last two positions decided the 2012 World Championship!!

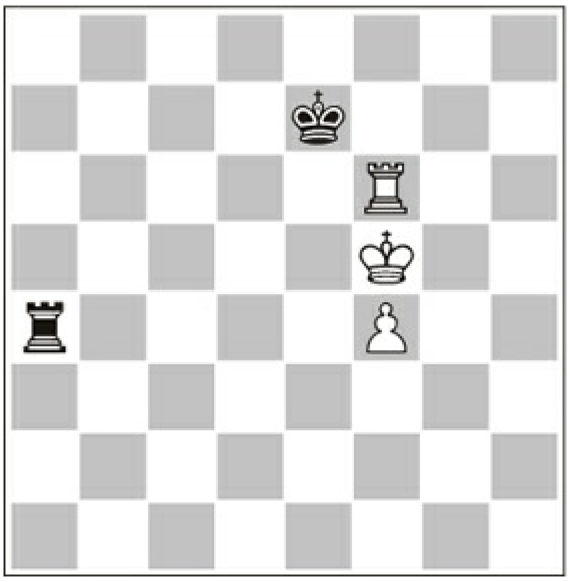
Exercise



14.41 Black (to move) is down two pawns, but he can recover both of them. Is this enough to save him?

Solution

14.41 44…Rxb4+? (Black recovers both pawns just to reach a lost endgame. It was far better to bring the king closer: 44…Kd6! 45.Ra7 (45.Rh7 Ke6=; 45.Rf7 Ke6=) 45…Rxb4+ 46.Kf5 Rxh4 47.f4 Rh6! 48.Rf7 Rh4 49.Rxf6+ Ke7= – with the black rook on h4, White cannot make progress) 45.Kf5 Rxh4 46.Re4 Rh8 47.Rd4 Kc5 48.Rd3 Ra8 49.f4 Ra4 50.Rd7 Kc6 51.Rf7 Kd6 52.Rxf6+ Ke7



Analysis diagram

53.Kg6! (the poor positioning of the black pieces prevents them from achieving Philidor (**Ending 52**) or Kling & Horwitz (**Ending 56**) positions) 53…Ra1 54.Rf7+! Ke8 55.f5 Rg1+ 56.Kf6 Rf1 (the position is similar to 'Kling & Horwitz', but in the text of **Ending 56** we read that against a bishop's pawn, the king must be on the short side. Here, that is not possible) 57.Ra7 Rf2 58.Ra8+ Kd7 59.Rf8! Rh2 60.Kg7 Rg2+ 61.Kf7 Ra2 62.f6 Ra7 63.Re8 Ra6 64.Re1 and the Lucena position (**Ending 53**) will be achieved. Black resigned and Russia (Karjakin) beat Ukraine (Volokitin) in the 2012 Chess Olympiad.

15. Appendix

1. Fortresses

In the introduction I explained the concept of the fortress and in some chapters we have analysed positions which could be considered fortresses. But there are some more that are interesting for the theory.

In the following diagrams I will show you positions that do not require much analysis, but that you should be familiar with. In some cases, a fortress is the only way to draw when certain material relations appear on the board; other situations are relatively normal, and you can head for them as a last resort.

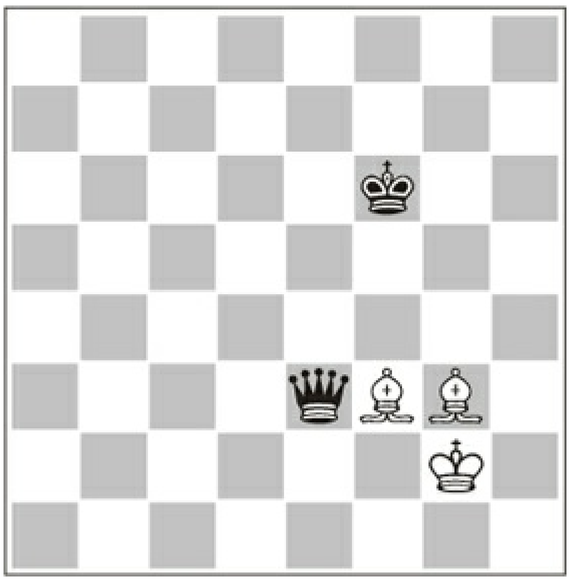
Observing the fortresses and understanding their logic is enough. Of course, if you are not convinced, you should check their soundness. If you reach an ending like these, with a material disadvantage, you can confidently head for these positions and you will find the right defensive procedure over the board.

Queen vs. 2 Minor Pieces



F1. Karstedt, 1903

Draw. Only in the corner.



F2. Lolli, 1763

Draw. Only in the corner.



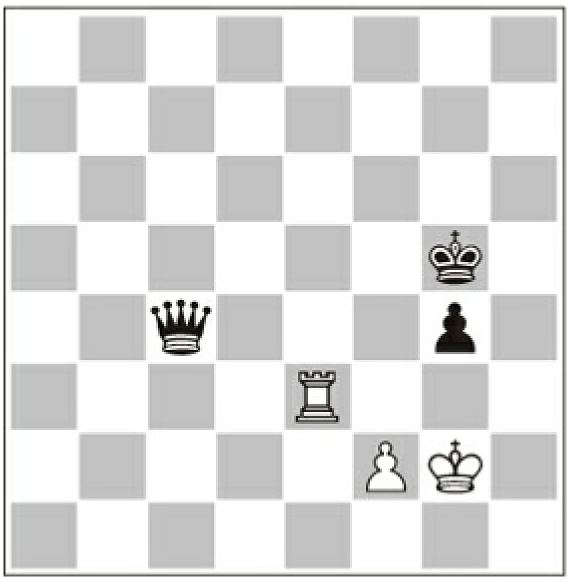
F3

Draw. The same black set-up is enough to draw anywhere on the board. The ending is usually drawn even if both knights are close to the edge of the board.

Queen vs. Rook (and pawns)

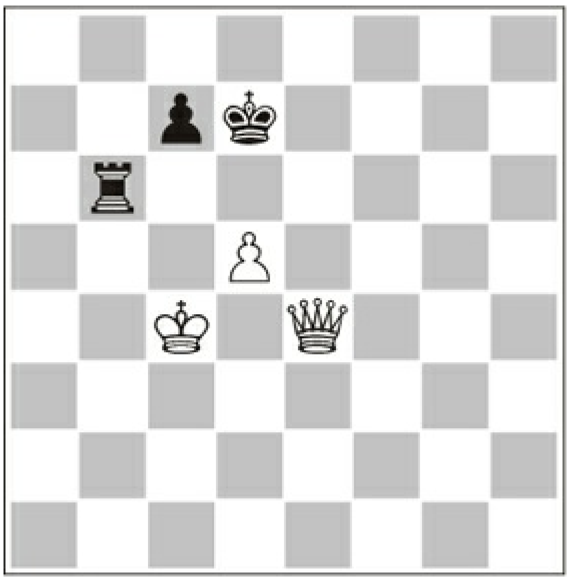
A rook close to the corner can set up fortresses against a queen, even if the latter has a pawn.

The next diagrams show the most famous examples with one pawn for each player, but there can also be fortresses with more pawns on the board.



F4

Draw. Not with the white king on e2.



F5. Salvioli, 1896

Draw. Not with the black king on b7.



F6

Draw. One of the most surprising fortresses. It requires a more accurate defence than most of the others.

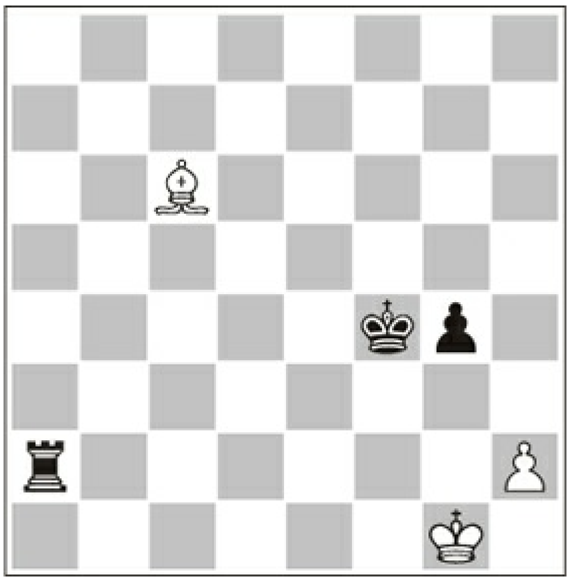


F7. Grigoriev, 1917

Draw. Only with the white king on the rook's file.

Rook vs. Bishop

A bishop close to the corner can successfully hold against a rook. It is worth noting another detail: usually the bishop and its pawns must occupy different-coloured squares. If the bishop is defending the pawns, the enemy king will penetrate on the opposite-coloured squares.



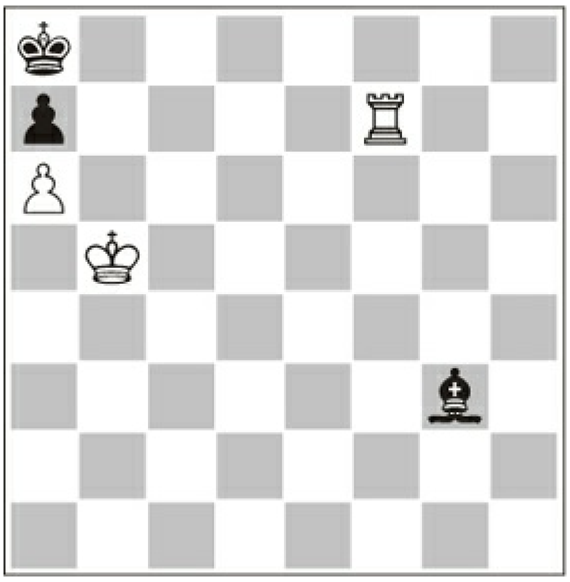
F8

Apparent fortress. Black can win with a brilliant plan, discovered by Noam Elkies in 1993: first the black king goes to h4, then the white bishop must go to the a6-f1 diagonal to prevent …Kh3, but the squares g2 and f1 are unavailable because of …g4-g3. Next, the black rook goes to b4, controlling important squares, and the black king to f3.



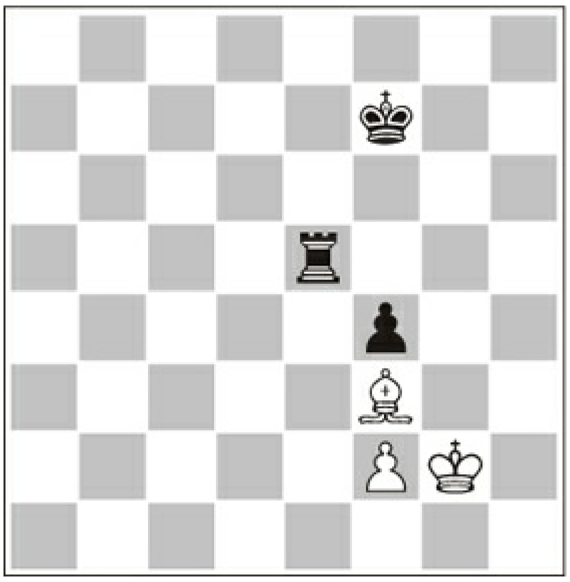
F9

Draw. The bishop must control the f3-square; the king, f2.



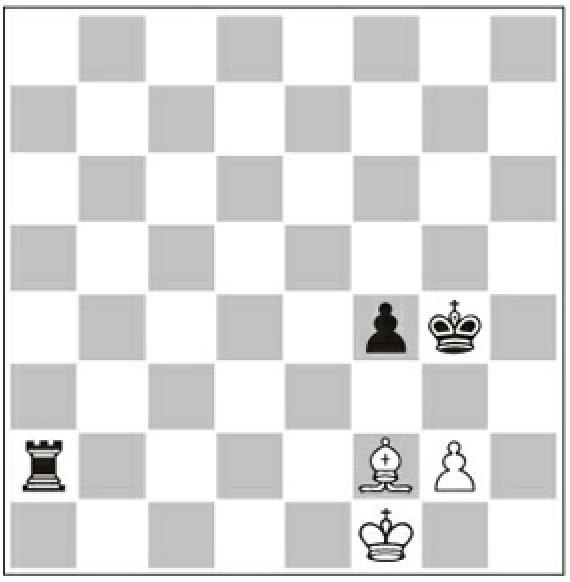
F10

Draw. Stalemate themes.



F11

Draw. The bishop must control the g4-square.



F12

Draw. The bishop controls g3 and the king waits, even against …f4-f3.



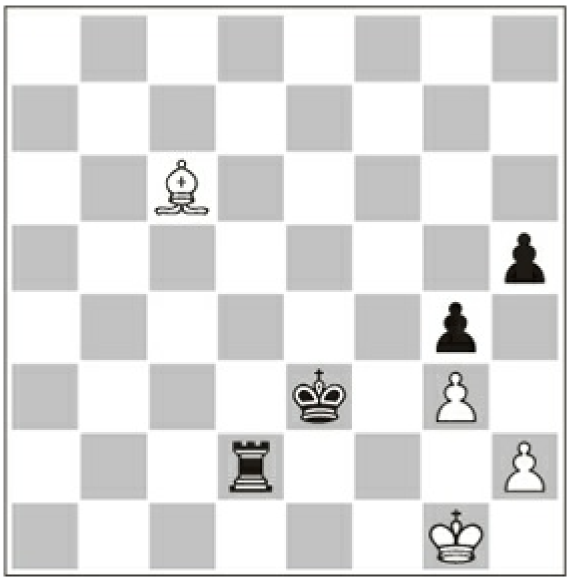
F13

A false fortress. Black can force one of the pawns’ advance to h3 and then win.



F14

Draw. The bishop keeps controlling the f3-square. This fails with the white pawn on h2.



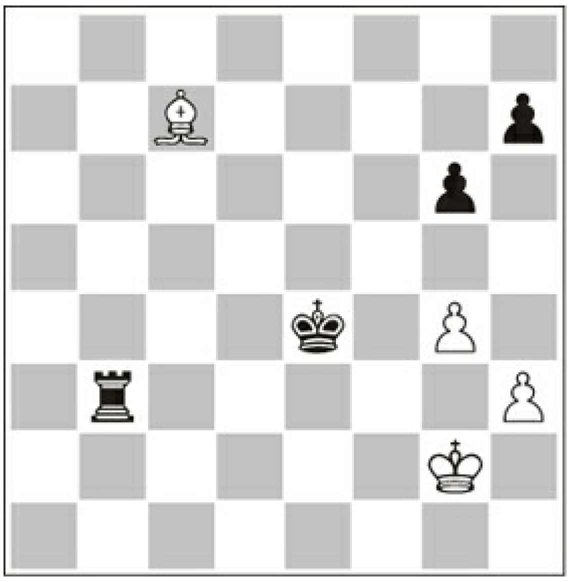
F15

Apparent fortress. Black can win by transposing to diagram F8.



F16

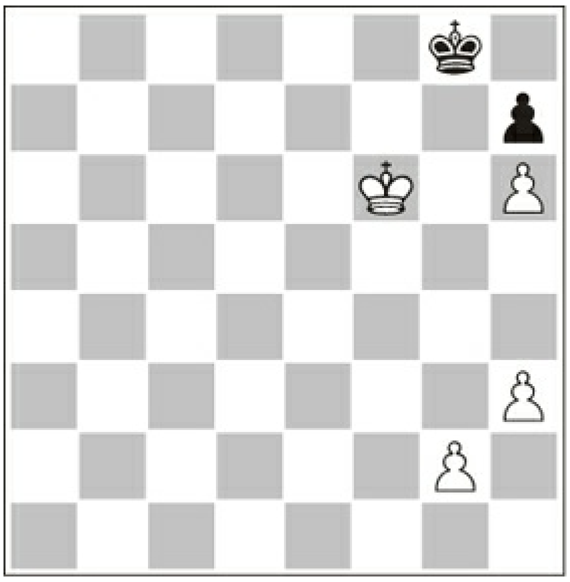
Draw. The bishop must prevent h3-h4 as well as Kf6.



F17. Averbakh, 1962

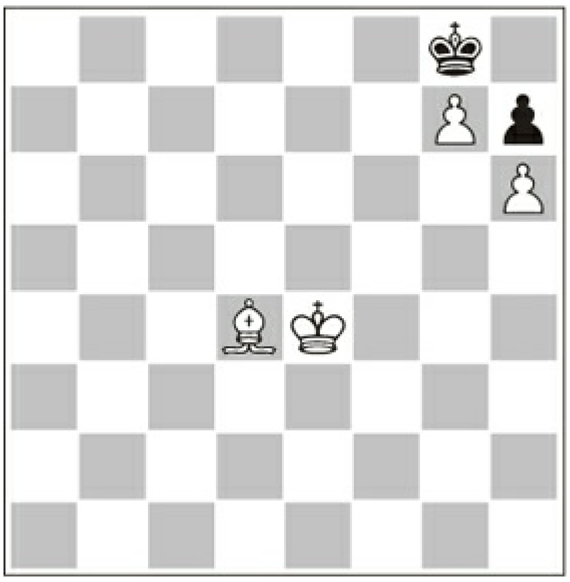
Draw. But not when the defending king is on the back rank.

A rook's pawn on the second rank works wonders.



F18

Draw. In the introduction we saw many fortresses based on the defensive strength of a rook's pawn on the second rank. There could be more pawns on the h-file.



F19

Draw, despite the overwhelming superiority of a bishop and a 7th-rank pawn. There could be more black pawns along the h7-b1 diagonal and more white pawns along h6-c1.

2. Different material relations: correct results

The following list contains certain infrequent, but possible, material relations, and the correct result of those endings. I consider it unnecessary to study these endings deeply, but it is

convenient to know what happens if they occur in one of our games.

A much more complete list appears in *Fundamental Chess Endings*, by Müller & Lamprecht. This book can be considered a modern endgame encyclopedia and I have taken some evaluations from that list:

2 Knights vs. a Lone King. Draw.

2 Knights vs. King + Pawn. See the separate paragraph below.

Queen vs. Rook. Won, but not easy in practical play.

Queen vs. Bishop + Knight. Won, except in position F1.

Queen vs. 2 Bishops. Won, except in position F2.

Queen vs. 2 Knights. This pair of minor pieces allows a greater number of drawing positions than other pairs. See F3.

Queen + Bishop vs. Queen. Usually draw.

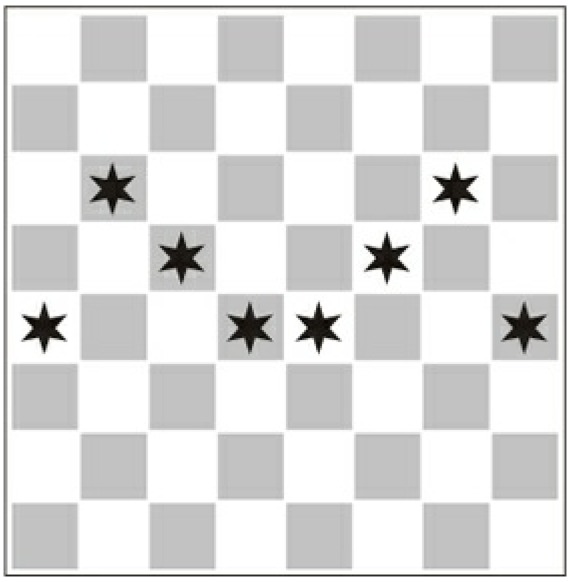
Queen + Knight vs. Queen. Usually draw.

Rook + Bishop vs. Rook. Usually draw.

Rook + Knight vs. Rook. Usually draw.

2 Bishops vs. Knight. Won. The evaluation of this ending changed in 1983 thanks to computer analysis.

2 Knights vs. King + Pawn. This rare ending deserves a separate paragraph. The knights can win thanks to the enemy pawn, which eliminates stalemate themes.



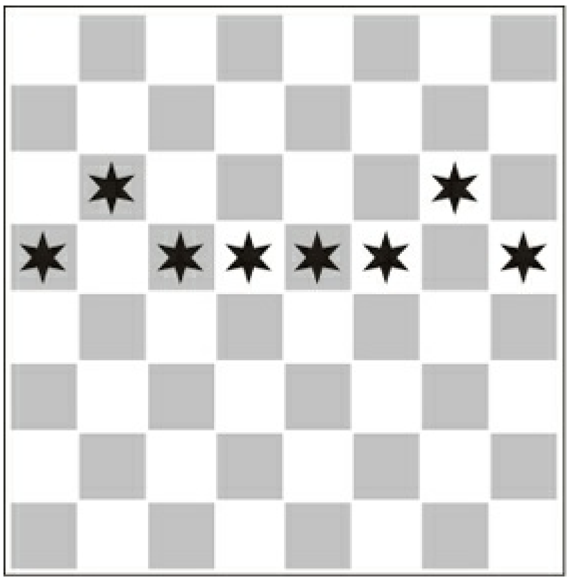
Troitzky's Line

If White has two knights, he can always checkmate the enemy king, provided the black pawn is firmly blocked on the marked squares (or before).

The Troitzky Line, first described by Alexey Troitzky, is **theoretically** correct, but it contains two practical problems. Therefore I want to present two other lines – for their practical interest, but also because I think that this way, everything will be much easier to remember.

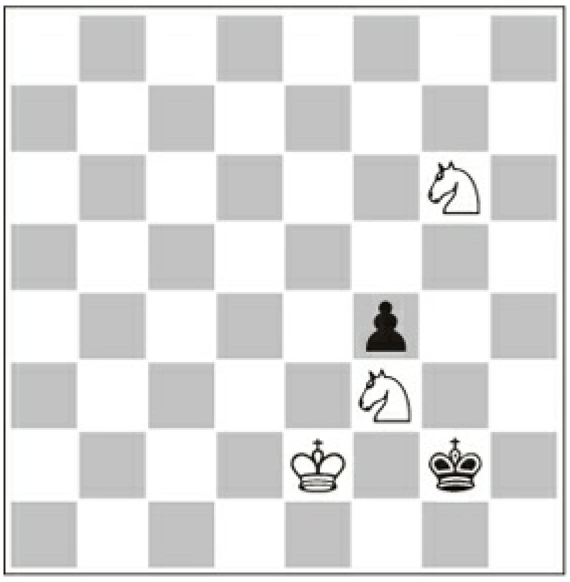
First:

In many positions the quickest win requires more than fifty moves (and thus would be a draw under the fifty-move rule). Karsten Müller came up with another line and he called it The Second Troitzky Line, where the knights can win without the fifty-move rule coming into effect, in 99% of cases (always depending on the position of the kings and of the knight that is **not blocking**).

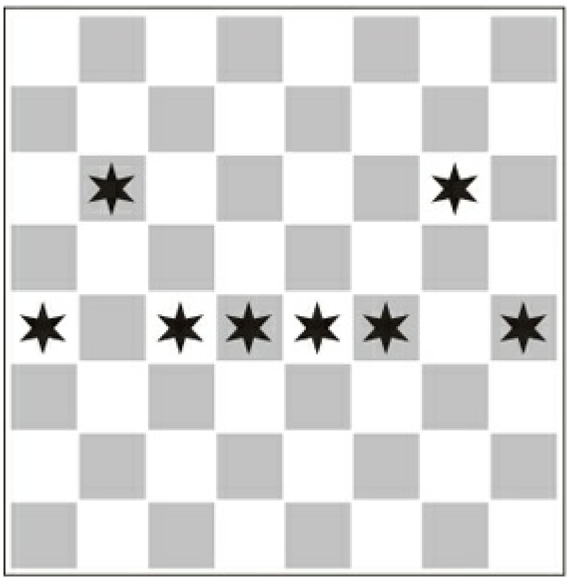


Second Troitzky Line (or Müller Line)

Second: In practical play, most positions are wins with the bishop pawn blocked on the **5th rank**. The only drawing resource for the defender is another stalemate pattern.



Black draws by moving his king **between g2 and h1. The second knight position doesn't matter**.



Troitzky Line without the corner stalemate exception.

Bibliography

Many a good endgame book has been written, and this bibliography does not intend to recollect all of them, but just to give the reader some advice on which works may help him complete his knowledge of theoretical endgames. Books dealing exclusively with multi-piece or multi-pawn endings or with endgame strategy are quite interesting when it comes to improve the reader's technique, but I have not taken them into account for this selection. The same goes for exercise books on endings. These are equally useful for training and checking our knowledge, but omitted in this list.

Rey Ardid

Spanish Dr. Ramón Rey Ardid's extensive endgame work occupies 5 volumes. Volumes 1 and 2 cover pawn endings (without pieces) and piece endings without pawns respectively, under the general title *Finales de Ajedrez* (Chess Endings). The others are *Finales de Piezas Menores* (Minor-Piece Endings), *Finales de Torres* (Rook Endings) and *Finales de Damas* (Queen Endings). This work constitutes one of the most complete collections of theoretical and practical endings, but some of these volumes are difficult to obtain. Only those devoted to rook and minor-piece endings, published by Club de Ajedrez Editions, are relatively well available (in Spanish).

Averbakh

Yuri Averbakh has also published several works on theoretical endgames, covering all types of endings. His series *Comprehensive Chess Endings*, available in English and Russian, constitutes another extensive collection of theoretical as well as practical endings.

Nunn

The English grandmaster John Nunn has undertaken the task of writing a series of books covering all possible positions with scarce material on the board, for which he relied on computer analysis. The first volume to appear was *Secrets of Rook Endings*, where Nunn studied Rook + Pawn vs. Rook endings in full detail. Later came *Secrets of Pawnless Endings* and *Secrets of Minor-Piece Endings*. The whole collection constitutes an excellent reference work that helps the reader solve all his problems in the endgame, though the present-day Nalimov Tablebases are able to serve the same purpose.

Levenfish & Smyslov: Rook Endings (Batsford)

This was the reference book for rook endings for many years, and it is still one of the most useful tools to improve our technique in these positions.

Müller & Lamprecht: Secrets of Pawn Endings (Everyman)

In the year 2000, Everyman Chess published the first book by these two German authors, whose depth and clarity surprised the whole chess community. Currently the best book to improve our technique in pawn endings.

Müller & Lamprecht: Fundamental Chess Endings (Gambit)

After *Secrets of Pawn Endings*, Müller & Lamprecht published a much more ambitious project with Gambit. This work can be considered a modern encyclopedia of the endgame, as it covers all the important themes and is based on computer analysis. Therefore, this is an essential reference book and equally useful as a study book.

Dvoretsky: Dvoretsky's Endgame Manual (Russell Enterprises)

Mark Dvoretsky is the most famous chess coach in our time, who has also worked seriously on the endgame. In this great work he has collected more than one thousand examples, presenting almost all the modern theory on this phase of the game. Dvoretsky's explanations are long and didactic, and so this book can be easily used for study or simply as a reference work. The book

was published by Russell Enterprises, but it is not easy to find in bookshops. However, it is widely available on the Internet. Many consider *Dvoretsky's Endgame Manual* the best endgame book ever published to date.

Van Perlo: Van Perlo's Endgame Tactics (New In Chess)

A very special book by Dutch correspondence grandmaster Ger van Perlo, highly recommended to those who want to perfect their knowledge of the endgame phase. In this immense collection of tactical positions, every reader will face two challenges: first, to study and recognize each separate theme, and second: to know when a forced variation leads to victory in the endgame and when it does not.

Benjamin: Liquidation on the Chess Board (New In Chess)

A recent book by American grandmaster Joel Benjamin, which investigates in a useful and at the same time entertaining way a critical phase in the game: the moment when to take the decision to simplify into a less complicated endgame. My experience as a trainer tells me that mistakes are often made at such moments. As the previous book, this work is helpful for training your tactical vision and constitutes a test of your theoretical knowledge.

Hellsten: Mastering Endgame Strategy (Everyman)

Although this book by Swedish grandmaster Johan Hellsten is a little further removed from endgame theory, it is recommended for readers who already know a reasonable amount of theory, as it presents an enormous amount of material, which introduces us to the next step of mastering and controlling the endgame. *Mastering Endgame Strategy* gives an overview of the most important ideas in practical endgames.

Index of Players

Numbers refer to pages.